

Whitetail Institute New Product Introductions For Fall

Where Deer Are Destined To Be

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Whitetail Institute's Proprietary Radish For Deer

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Maximize **Your Small Acreage**Four Steps to Creating a Whitetail Paradise

Story On Page 20

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A Message from RAY SCOTT

Founder of the Whitetail Institute of North America



...food plotting goes well beyond just planting and even hunting.
It creates a satisfying and gratifying lifestyle... planting food plots is work, but it's fun work and that makes all the difference.

Happy Food Plotters

ver the past 30-plus years we have had the pleasure and privilege of watching the Whitetail Institute grow and help greatly improve deer hunting across North America through improved nutrition and responsible whitetail management.

At the same time, it appears we have also improved the personal lives of many hunters and land managers.

Specifically, we have heard many heartfelt accounts of lives changed for the better through spending more time on the land and the enjoyment and pride of watching food plots grow.

It's pretty basic, I think.

There is something about the hum of a tractor slowly disking soil under a blue sky. A man can think... or just relax... or get away from the stresses of modern life.

And there's the ultimate thrill of watching those first green sprouts peeking through the dirt... and feeling the satisfaction of a job well done and the anticipation of the hunt to come.

This food plot revolution began in 1988 with the introduction of a single product — Imperial Whitetail Clover. It was the first product developed specifically for the very unique needs of whitetail deer. Since that time the Institute has developed several dozen additional deer nutrition products. And along with those products came countless articles and planting instructions, sending enthusiastic (and hopeful) hunters and

managers to the woods and fields, many for the very first time. These hunters and land managers were necessarily introduced to the basics of planting. And most have made it clear they loved getting their hands in the soil and watching their plots grow. It was nothing short of a revelation and a revolution.

It became obvious we had created a parallel universe of dedicated, near-professional farmers with avid hunters/planters watching weather conditions from their desk jobs and work-places, anticipating their next step in the food plot and habitat improvement process.

I think that's why I really appreciated the upbeat article by Mark Olis, "Plotting for Work or Fun" on page 7.

In his assessment, food plotting goes well beyond just planting and even hunting. It creates a satisfying and gratifying lifestyle. He concludes that planting food plots is work, but it's fun work and that makes all the difference.

He also states that "food plotters are happier people."

I can't say that was our mission in 1988 but we'll happily own it.

Ray Scott



NEW Imperial Whitetail

he Whitetail Institute is excited to announce the introduction of a brand-new food plot product called Imperial Whitetail Destination, which creates a lush, extremely palatable food source that offers truly superior attractiveness to deer. Designed for planting in the fall, Destination combines five highly attractive Whitetail Institute annual forage components in a way that delivers incredible performance from fall through winter. All five components are proprietary to the Whitetail Institute and are only available in Whitetail Institute products.

There is no question that Destination is one of the most attractive fall annual food plot products the Whitetail Institute has ever offered. There are two primary reasons, both of which are a result of the Whitetail Institute's goal-oriented approach to product development. First, Destination is designed to meet one overriding performance goal: attractiveness to deer. And that should come as no surprise to anyone familiar with Whitetail Institute products. All Whitetail Institute food plot products are designed to maximize performance in multiple characteristics such as attractiveness to deer, rapid stand establishment and early seedling vigor, fast growth, high nutritional content, cold and heat-tolerance and resistance to disease. While the Whitetail Institute considers all these characteristics important, the most important of all is attractiveness to deer. Destination meets the Whitetail Institute's superior attraction requirement through its components — five proprietary Whitetail Institute seeds that have all proven themselves through research efforts and over time to be extremely attractive to deer.

Second, Destination is an excellent example of the Whitetail Institute's practice of developing blends of complementary forages in order to sustain maximum attractiveness of the stand over the long term. You may have noticed that most Whitetail Institute food plot products are blends of different plant varieties. The main reason is that it's rare for one type of forage plant to provide optimum performance in all the categories for which the Whitetail Institute tests. That's why the Institute thoroughly researched, developed and selected several plant varieties to boost attraction and longevity even further, and then combined them in the optimum ratios as shown by Whitetail Institute testing. The exhaustive research and testing to develop food plot products that perform up to the Whitetail Institute's relentless expectations is one reason Whitetail Institute food plot products continue to dominate the market. This is accomplished by combining various components in different proportions and then testing them on wild, free-ranging deer until the Whitetail Institute identifies the optimum seed varieties and ratios to maximize attraction over the longest period of time. Each of its components have been selected and then combined with the other components in Destination so that no matter what time of fall or winter it is, deer will have multiple extremely attractive forages available to them.

Let's take a quick look at Destination's forage components and how they interact to deliver remarkable attraction from early fall all the way through winter. This will help you determine why you will want



to make sure you have Destination planted on your hunting property this fall and winter and for years to come.

Early Fall Through Late Fall

Whitetail Oats. Without question, Whitetail Oats are the most highly attractive oat variety the Whitetail Institute has ever tested. It's somewhat unique in that it's one that Whitetail Institute didn't discover on its own. The Whitetail Institute first heard about it years ago through one of its worldwide agriculture contacts, who told the Whitetail Institute about an oat variety that had been included in a university research project comparing how well different oat varieties performed as grain producers. According to the Institute's source, the university researchers had removed the oat variety from the grain-production tests and "shelved it" because it had been so heavily browsed by deer! Subsequent testing by Whitetail Institute confirmed the oat variety's superior attractiveness to deer and, additionally, found that the oat is more cold tolerant than other varieties the Whitetail Institute had tested. That oat variety became Whitetail Oats and is now a proprietary Whitetail Institute forage.

WINA 204 Pea. It's no secret that deer love winter peas. When it comes to attracting deer, though, not all winter pea varieties are created equal — some are simply more attractive to deer than others. WINA 204 Pea is a high-sugar pea that has consistently proven itself in side-by-side cafeteria tests across North America to be vastly more attractive than any other pea variety the Whitetail Institute tested. WINA 204 Pea is also high in protein and cold tolerant.

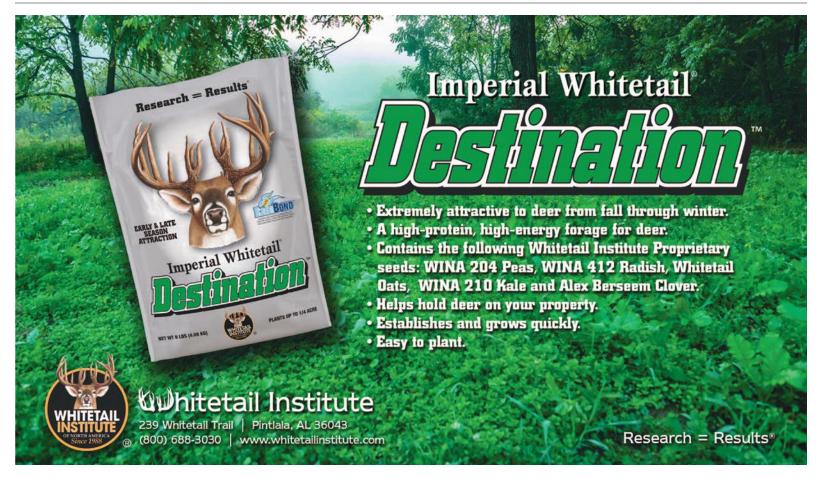
Alex Berseem Clover. Alex Berseem is an annual clover that has

long performed double duty in other Whitetail Institute products — as a complementary early attractant in many Whitetail Institute annuals, and as a fast green-up component in many Whitetail Institute perennials. In both cases, its primary purpose is to attract deer to a food plot as soon after planting as possible.

Fall Through Winter

WINA 210 Kale and WINA 412 Radish. The oats, peas and clover in Destination provide the bulk of attraction in the months right after planting and well into the cold months. WINA 210 Kale and WINA 412 Radish also establish quickly, boost early attraction even further by increasing the variety of food options in the plot, and provide additional tonnage during early fall. Once frosts arrive, enzymes in the kale and radishes convert starches in the foliage to sugars, making them even more attractive to deer and providing deer with high carbohydrates through winter. The thick, deeply rooted tubers produced by WINA 412 Radish also continues to act as a much-needed food source for deer through the coldest winter months. (Editor's Note: You can find out more about the Whitetail Institute's new WINA 412 Radish in a separate article about a new product called Ravish that starts on page 18 of this issue.)

Destination is available in 9-pound bags that plant 1/4-acre. Sites with moderately light to medium-heavy soils are optimum. Avoid wet bottom areas. Destination requires a minimum of 3-4 hours of filtered or indirect sunlight a day. For additional information about Destination, go to whitetailinstitute.com or call the Whitetail Institute at (800) 688-3030.





to get in the ground, but that doesn't mean it can't be fun.

By Mark Olis

Photos by the Author

hile knocking out core classes at Auburn University as a young man, I had yet to choose a major. I remember quizzing my dad and others who had spent decades in their careers about how to choose the right profession. The overwhelming response was, "Find something that you enjoy doing and it will never feel like work." Of all the insight that could be shared from more than 30 years of professional experience, this was the most important one mentioned. I've always remembered that, and it helps guide me today.



I don't make a living planting food plots, but I also don't add up the hours and trips to the farm I spend trying to create the best environment to grow nutritious and attractive food for wildlife. I love the job of working the soil so my hard work will ultimately yield its bounty. At a primal level, my urge to garden and live off the land sustains me as a hunter. Although the dizzying schedule and obligations of my professional life often seem like work, the slow drone of a diesel engine and a tractor-pace breeze in my face keep me happy.

Food Plotters Care More

I spend many hours each year overseeing and planting 10 acres of food plots in east-central Alabama. I'm one of seven members man-

aging and hunting 800 acres of Appalachian foothill. I've taken the approach of treating our food plots just like a farmer would treat his ag fields. I want to put into the soil the amendments it needs to create an environment to produce the largest yield of whatever I'm growing. It's a time-consuming chore to maintain that level of soil health, but I enjoy it and the other members appreciate my efforts. If reading soil analysis and sowing seed makes you happy, you should be in charge of planting food plots where you hunt.

The food plotter is intimately in tune with the changing seasons and is always thinking a couple of steps ahead. Never settling, he constantly measures success one soil test at a time. My desire is not to change things overnight, but instead to create a long-lasting and healthy soil where carefully selected plants can thrive and feed





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wildlife. This starts at the soil level with a caring hand that finds joy in making things better.

Food Plots Require Teamwork

Work weekends, when members and their families help prep and plant plots, are perhaps my favorite aspect of food plots. Planting weekends are a far better way to introduce children and new hunters to the sport than just throwing them afield during hunting season. The hunt should be the reward for work that was completed weeks, months and maybe even years earlier. Children and people new to the outdoors try to absorb as much knowledge and experience as possible when given the chance to be set free in the wild. So don't rush through the task. Instead, take the time to explain the relationship between the soil and our food. Explain why you disc or don't disc the ground, why you plant a specific blend of seeds, and why you fertilize and cultipack. Then, paint the picture of future hunts, explaining why you did the things you did. Help them look out at the bare soil and imagine a lush field full of deer and turkeys in just a few weeks or months.

My son doesn't like to wake up early and go out for hours on a stand deer hunting, but he loves the planting weekends when our members work as a team putting in food plots. This is the perfect time to safely and carefully introduce children and city folks to the most iconic of farm equipment — the tractor. Let youngsters help steer the wheel while you slowly ride around breaking ground. Many hunting club members grew up in the suburbs and didn't have an opportunity to use tractors and plant fields. Show them how to safely operate the equipment on large, flat food plots so they will know the right way. You never know how an experience will spark an interest.

And let's face it, there are always rocks waiting to be thrown out of the field. There's no reason you can't get some help in doing so. Children are especially great at tossing rocks, but don't tell them they are working. Instead, challenge them to see who can throw the farthest or pick up the most. Remember, this is the place we come to get away from it all, so act like it.

Planting Plots Gives Members Ownership

Involving family, friends and hunting members in the practice of planting food plots also lets them buy into the bigger picture. When children and hunt club members physically experience the effort, sweat and time it takes to improve the hunting on the property, it's easier for them to buy into management goals.

Many hunting clubs struggle to reach the doe harvest prescribed to their property because members typically hold out for a buck. However, when those members help plant food plots and put up exclusion cages, they see firsthand that the habitat isn't keeping up with the number of mouths being fed. Now they have a reason to shoot does and help reach harvest quotas. On the flip side, when members help plant plots, they might find it easier to pass on young bucks, knowing the group is doing everything possible to grow bigger bucks. Planting food plots helps create positive momentum for the upcoming hunting season among all members, which makes camp life more fun and enjoyable.

Food Plotters Are Happier People

I think the guys who take on food plot duty are happier people. The camp cook is probably more fun, but the food plotter is a close second. Think about it: The man on the tractor hums along at a few miles per hour, and he's content as the diesel engine drones him into his thoughts. Meanwhile, there are people sitting in traffic somewhere cussing each other because they aren't moving 60 mph during their commute.

A food plotter is a patient and confident person, too. They put in the hard work, seed, lime, fertilizer, time and money on the front end, not fully knowing if their efforts will be rewarded by Mother Nature. However, they have faith in the knowledge and application, so they watch patiently.

A food plotter is a more content hunter, too. Even when deer don't

move, who else can sit and stare at a stand of neon green oats and not feel fulfilled and at peace?

When we slow down to get in rhythm with nature, it's impossible to not gaze upon the landscape and be proud of the work poured into the betterment of the place. Even if I don't see a shooter buck all season, the hard work is honored by watching does and young bucks tearing up mouthfuls of lush, nutritious crops growing from nurtured soil.

Planting food plots is work, but it's fun work. Every turn of the tractor, every sprout of green emerging from the earth and every deer harvested are efforts toward improving the future. If that's not how it feels to you, perhaps some time on the dishwashing line will help recalibrate the joys in life or at least give someone else a chance at finding their food plotting passion.

The author's daughter, Ella Cate, loves to go to the hunt club on work weekends! She isn't told to be quiet and she's allowed to be free and learn the intricate balance of nature from the smallest insects to the tallest trees — and everything in between.



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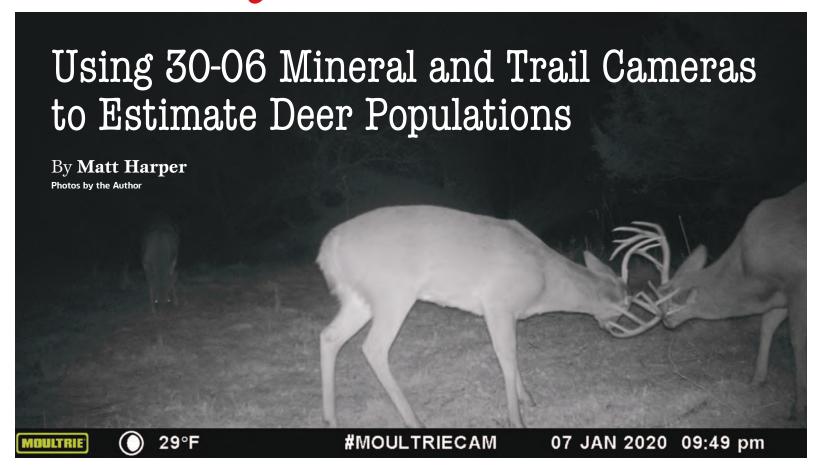


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How Many Deer Are Out There?



he cool mid-October breeze blew lightly from the northwest, brushing against my right cheek and drifting up a steep bank where I knew no noses would detect me. The creek behind me — the one I used to play and fish in when I was a kid — gurgled and babbled as if in a conversation as it meandered eastward. The late-afternoon sun was in that special place where it saturated everything with vivid color, from the emerald-green food plot to the orange and yellow leaves that still clung to the oak and hickory trees up the ridge.

It was perfect — a wonderful day in God's spa, which, for a hunter, beats anything money can buy. Well, it was almost perfect, because although the setting was ideal, there weren't any deer — not even an overconfident fawn that had not yet learned to avoid hunters. Other critters abounded: the ever-present fox squirrels that chased each other above me, a red-tailed hawk screeching his hunting song, a curious opossum that was fascinated with my tree stand and even a blue herring waded the creek looking for suckers.

It was my first sit of the season, and I began to question whether there were deer anywhere on the farm.

Had a gang of trespassers chased everything away? Maybe there had

been a marauding band of coyotes that swept down from the hills to the north. Maybe it was those damn black helicopters. OK, I really didn't blame black helicopters, but when you see no deer, you begin to question everything.

You might think my thoughts were irrational, but if you're a hunter and spend enough time in the field, you'll experience days when deer seem to disappear. Logically, you know they are there based on the sign of tracks, trails, rubs and scrapes, but your mind fights and pushes back against logic.

In the past, sign was all we had to rely on as hunters. However, with the advent of trail cameras, we now have photographic proof.

Trail Cameras

I remember when I would peer down a heavily used deer trail and wonder what had come down the path or conjure up an image of an old bruiser using a well-worn scrape. Admittedly, the mystery of not knowing is a bit romantic, as it lets your mind freely construct the possibilities. Then again, the image is likely not reality, and if you're a deer hunter or manager, knowing what's happening on your hunting property is far more fruitful. That's what the advent of trail cameras has brought— a look into the reality of a world that had gone unseen. That's pretty cool, and it's why almost everyone who uses trail cameras becomes giddy with anticipation when they open a file to see what they captured digitally. It's just plain fun, like Christmas morning, every time you check a camera. And it extends hunting season far beyond the time you can carry a bow or gun. But trail cameras are more than just fun. They are invaluable and versatile tools that can be used for multiple applications. And now with Moultrie Mobile cellular cameras, you don't have to go pull SD cards and disturb the area. With Moultrie Mobile, the cameras will send the photos directly to your phone or computer.

Scouting has forever changed with the advent of trail cameras. That doesn't mean old-fashioned woodsmanship isn't important, but cameras let you scout as if you're sitting in the woods 24/7. Often, several trails lead to and from a food source, but which one gets the most traffic and offers better odds of hunting success? Cameras help answer that. Where are a big buck's bedding area, travel routes and core areas? Cameras help solve those mysteries. In fact, hunting one specific buck was almost impossible for most before trail cameras. Cameras will also tell you what your mature buck inventory looks like and let you create the infamous hit list of bucks you will seek during hunting season. Trail cameras help prevent the shooting of younger bucks. They let you study pictures in your easy chair to identify bucks and determine their age versus making a split-second decision the first time you see them.

Trail cameras benefit more than hunting, as they can greatly improve your ability to manage your deer herd. I believe trail cameras are more valuable for management than for any other purpose. As mentioned, cameras help minimize the shooting of younger bucks because you can get more accurate age estimates on specific deer. Cameras can also help to evaluate herd health by letting you study the average body condition of the deer. If you seem to have an overabundance of deer in poor body condition, something might be going on, such as a disease threat or nutritional challenge. Remember, body conditions will normally vary throughout the year. Does often look drawn, skinny and sucked down during lactation, and bucks will appear in poor condition during the post-rut, having lost lots of weight during the breeding season. Neither situation would necessarily indicate a management problem. Cameras can help determine whether you have an issue or deer are simply in a normal cycle. However, if you're getting pictures of older does with only one fawn or 2-year-old bucks in poor condition, you might have a problem. Without a camera, it would be much more difficult to ascertain what you're dealing with.

Cameras also can identify predator issues, most obviously by supplying lots of predator photos. Less obviously, you can monitor pictures of fawns. If you have pictures of does with twins and triplets but you later notice those doe/fawn groups with one or no fawns, you might have a predator problem, especially if the does seem healthy. Of course, cameras can also help to discourage two-legged predators.



Using trail cameras in conjunction with 30-06 minerals can help you estimate your deer population.



Trail cameras help greatly with deer management by providing insight into deer population, buck-to-doe ratio, health of herd and identifying individual deer, etc.

Signs posted at my farms state the properties are monitored by cameras. Cameras also help you to determine buck age ratios, buck-to-doe ratios, fawn recruitment and many other management factors. Suffice to say, cameras let hunters manage their land far more effectively than in the past by using factual data that would not be available without them.

30-06 Products and Cameras

As mentioned, cameras can be used for hunting, scouting and management. Depending on which you're trying to accomplish, camera setups can vary. Putting cameras on trails, scrapes and rubs might help to pinpoint buck movement, but if used for management, cameras must capture a good representation of the entire herd. Therefore, you must figure out something that will bring as many of the deer as possible to pose for the camera. You can use several methods, including a food source. Corn or deer feed are popular choices. However, before you buy bags of shelled corn, there is another — and in my opinion better — option. One that offers fantastic attraction but also beneficial nutrition as well.

Several years ago, Whitetail Institute developed a line of mineral/vitamin supplements called 30-06. Today, the 30-06 family includes 30-06, 30-06 Plus Protein and 30-06 Thrive. These products are designed to provide supplemental nutrients specific to a deer's needs at specific times of year. 30-06 and 30-06 Plus Protein are designed for spring and summer, and 30-06 Thrive is formulated for deer needs in fall and winter. The idea of a supplement is to provide nutrients that might be lacking naturally in quantities that will maximize growth and development. For example, almost all soils are deficient in one or multiple minerals vital to the deer herd. Deficiency levels vary from

farm to farm and region to region, but all soils will fall short in some regard. 30-06 products help supplement these deficiencies to make sure a deer's nutritional plane is maximized.

Lactation, antler growth and fawn development require high amounts of calcium, phosphorus, magnesium and trace minerals, and when optimal levels of these nutrients are realized, lactation, fawn growth, antler growth, body weights and body condition will improve. Nutritionally and biologically, that's the way it works, and years of research and field testimonials from thousands of 30-06 users have proven that to be true.

As mentioned, 30-06 supplements are not only nutritionally beneficial but also highly attractive. When deer start using a 30-06 site, they continue to return on a regular basis. Bucks, does, fawns, yearlings and all segments of the herd will use the site and will continue to do so year after year. Research has shown that fawns will learn from the doe where those sites are located and return even after they are weaned and break off from their mother. Those considerations mean 30-06 sites are excellent choices to be used in combination with trail cameras. Compared to corn or feed, 30-06 sites are more attractive in spring and summer and, more importantly they offer far superior nutrient benefits and will last much longer.

The mineral works its way into the soil, and deer dig into the dirt long after the mineral is no longer present at the surface. That gives you a much better set of photo data to work with, as images will be taken during a longer period, and the site doesn't require as many replenishment visits, thus decreasing human scent and pressure. Corn also attracts many non-target animals that take up card space, such as racoons, turkeys, birds and almost everything else in the woods. 30-06 mineral, however, attracts few non-target animals, so most — if not all — pictures will be of deer. Again, I can't emphasize this



The old adage that "You Get What You Pay For" still holds true today. Thousands of cameras we built over a decade ago are still in use, delivering clean, crisp images that will make your heart race. And if you ever do have an issue, we promise to be there for you with World Class Service and Support. You put too much time and effort into your season to risk it all to a cheap trail camera. So, why not invest in an American Made Game Camera that will be there for you year after year, Guaranteed. RECONYX, See What You've Been Missing...

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enough, 30-06 provides beneficial nutrients deer need as opposed to using something such as corn or a salt-based product solely for attraction. If you want to attract deer to the camera, you might as well provide them premium nutrition at the same time.

Estimating Population

Of all the management practices conducted with the aid of trail cameras and 30-06, estimating your population is one of the most valuable. Having a good idea of your deer population can help you make decisions, such as how many acres of food plots to plant and determining your harvest goals. You might think this is only important on big parcels, but it can also be useful on small properties. One of my farms is about 120 acres, but I still conduct population studies, and the information I obtain helps me make management decisions.

is about 120 acres, but I still conduct population studies, and the information I obtain helps me make management decisions.

Of the 120 acres, about half consist of heavy cover and bedding areas. I plant food plots, and the property has multiple water sources, so many deer call the farm home, as they don't have to travel for essentials. I realize some deer on the farm come and go, and I pick up

other neighboring deer at times, but having a population estimate for a window of time allows for educated decisions versus guesswork. I like to do two population studies: one in spring/summer and one in fall/winter. That's because population levels shift, especially on smaller properties. Spring/summer populations on my farms tend to be lower than fall/winter populations because of the more readily available cold-weather food. I also plant winter plots such as Winter-Greens and pull deer from other properties. If I used the numbers I obtained in the spring study, it would be inaccurately low for winter.

You can use many methods when conducting a population study. In fact, entire books have been written on the subject. But some basic, consistent pieces hold true. Most methodologies recommend only conducting studies in fall, just before hunting season. The reason is that in spring and summer, traditional baiting with corn is not as effective because other food sources are available. However, with 30-06 mineral, summer surveys can be conducted just as accurately as fall surveys. Plus, as mentioned, populations often vary from summer to winter, especially on small properties. A summer estimate helps you make decisions on management aspects such as the number of summer food plot acres needed versus fall/winter acres.

I typically wait until mid-July to do a study. By then, most bucks have sufficient antler growth to identify individual bucks. Most recommendations are one camera per 100 acres, but I usually run at least two — maybe three — per 100 acres for smaller properties. I use an aerial map and place camera sites at equally proportioned areas on the property. Recommendations for study duration are typically 10 to 14 days, but in summer, I might run them for 21 days or

more. I like to use mineral sites that have been active for years because it increases the odds of the entire herd using it during the test. When you're using a new site, make sure it's being used heavily before beginning the study.

When you collect photos, try to identify as many unique bucks as possible, along with the total number of bucks. It's almost impossible to identify individual does and fawns, so most methods use a formula to account for this. Here's one example: Develop a ratio of uniquely identified bucks versus the total number of bucks. If you count 200 bucks but can only identify 30 as unique, the ratio would be 30/200, or .15. You can then multiply the number of does and fawns by that ratio to get an estimate of the total number of does and fawns. For example, if you have pictures of 400 does and 500 fawns, that produces an estimate of 60 does and 75 fawns. I realize that formula could be skewed with a high doe-to-buck ratio and other factors, so you should do some research to find the best formula for your situation. This example just provides an idea of how the formulas are used.

Summary

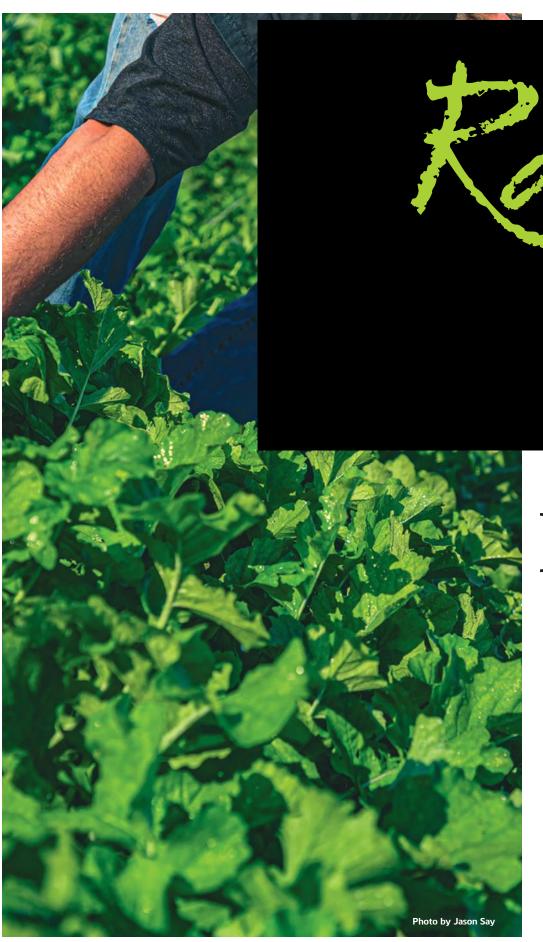
The world continuously changes with the advent of new technologies, and the hunting scene isn't different. Trail cameras let you hunt and manage in ways folks could not in the recent past. When 30-06 was developed, it was for the nutritional benefit of deer, not as an aid to trail cameras. Regardless, trail cameras and 30-06 unquestionably work well together, and during the past 20 years, I've used the combination with great success.

CAUTION: 30-06 products are so attractive, some states consider them bait. Consult your local game laws before using or hunting over 30-06.



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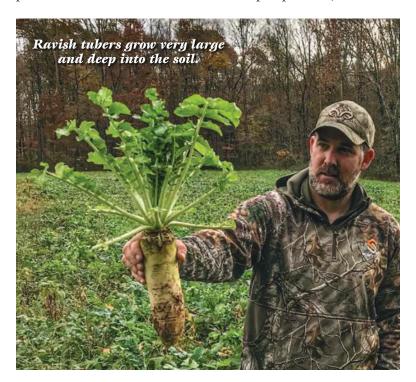


for Fall
Through
Winter.
Plant it by itself,
mixed with other

seeds or as a topper for existing plots.

mperial Whitetail Ravish, featuring the Whitetail Institute's proprietary WINA 412 Radish, is a brand-new annual food plot product for fall planting. As versatile as it is attractive, Ravish can be planted by itself, mixed with other seeds or over-seeded into existing forage stands to provide additional attraction through variety, early-season tonnage, and increased availability to deer through winter. Secondarily, Ravish can even improve soil quality.

When it comes to food plot plantings for deer, all radish varieties are not equal. One thing that makes WINA 412 Radish unique is that it is the only radish variety ever developed specifically for use in food plots for whitetail deer and is available only in Whitetail Institute products. Like all Whitetail Institute food plot products, Ravish has



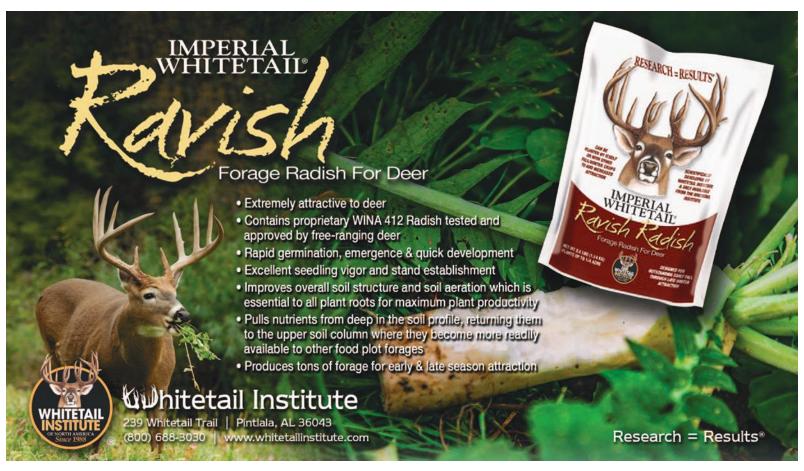
been thoroughly tested across the country to ensure suitability to a wide range of climates as well as top attraction and extended availability.

Ravish Foliage. Ravish exhibits rapid germination as well as superior seedling vigor. The foliage develops quickly, providing outstanding tonnage from early fall through late season, and it becomes even sweeter after fall frosts arrive.

Ravish Tubers. The tuber part of Ravish begins to grow right after germination, growth continues through the fall, and they're available to provide deer with much needed food through winter. Unlike the small, round tubers you see on radishes in the grocery store, Ravish tubers grow very large and grow deep into the soil.

Soil Improvement Aspects. In addition to its incredible ability to attract deer and provide food for them during the fall and winter months, Ravish tubers can actually improve soil structure due to their deep, wide growth characteristics. This can present a number of benefits, whether Ravish is planted by itself, mixed with other seeds or as a topper for an existing food plot. The space the tubers create in the soil improves 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. This increases soil organic matter, which improves the ability of future plantings to utilize nutrients in the soil.

Ravish is designed for fall planting only. It is available in 2.5 lb. bags, that will plant 1/4-acre when planted alone or up to 1 acre when mixed with other seeds or overseeded into existing stands to add variety, tonnage and attraction.



Maximize Your Small Acreage

Shrink Their World: Four Steps to Creating a Whitetail Paradise on Small Acreage

By Scott Bestul
Photo by the Author

whitetail, but he was about as good a buck as we'd grown in our neighborhood. "The Flyer Buck" was 4-1/2 years old, and he'd grown up before our eyes. My neighbors and I had watched him grow from an impressive 2-1/2-year-old into a better mature buck and finally morph into the kind of deer we'd dreamed of growing. When my neighbor's boy, Tanner, dropped the hammer on the Flyer Buck during a mid-November hunt, it was cause for celebration.

The Flyer Buck did not grow up in a manicured whitetail sanctuary. Although my neighbors and I improve habitat and grow food on about 200 acres, we are surrounded by state-managed wildlife management areas where anyone can hunt and any buck is fair game. We don't control a buck's world.

But we're getting better at the things we can control; the places where a buck beds and feels safe, the spots where he feeds and the areas where he finds mineral. In fact, we've found that even on relatively small tracts, you can shrink



Steven Koenen killed this southeastern Minnesota buck on an 80-acre tract. The 180-class whitetail spent a significant portion of his summer and early fall on those 80 acres, where a secluded food plot and nearby bedding provided for most of his needs. Even better, the buck was buddies with a 7-1/2 year drop-tined 8-point, and the two were frequently seen together and captured on trail cam. When you maximize your ground,



a buck's world by creating or enhancing the elements he wants and needs most. Of course, bucks don't limit their lives to the small farms we manage, but our improvements make the property attractive enough that it becomes one of the places a buck visits more frequently. And in turn, those places can also become where bucks are most vulnerable to harvest. With that in mind, here's a look at four things you can do to make a small property the focal point of a buck's

Create a Safe Haven

After years of pondering bedding areas, I've modified my definition. When people talk about whitetail bedding areas, their mind leaps to the concept of a specific place to which deer return night after night. So when folks say it's important to create bedding areas, it's understandable when you imagine a cozy but highly specific little spot where a buck can tuck in, pull the covers over his head and snore like a sailor.

Of course, deer rarely bed like that. I've seen a few bucks that seemed to have fairly specific bedding spots, but they've been the exception. What they have are general areas where they feel safe enough to rest with consistency. Within that area, they'll have specifics spots they choose to sleep depending on food sources, wind direction, temperature, hunting pressure and other factors. They'll have a couple of these within their core area (the place where they spend most of their time) and several more within their home range (the area that encompasses most of their movement).

So, when we talk about creating bedding cover, we must look at altering habitat in several spots within a buck's core area, and most of this work is done with a chainsaw. I've written about the benefits of hinge-cutting and logging before, and our management efforts include almost-yearly timber management to create or enhance the thick cover whitetails use for bedding. People get excited about food plots — and they should — but in my opinion, timber management is equally — sometimes more — important in making a property attractive to deer.

Perhaps the biggest key to keeping bedding areas effective is a commitment to minimizing human disturbance. I don't believe mature deer are necessarily smart, but they are very good at repeating successful behaviors. Bump an old buck or mature doe from a bed once and it's usually no big deal. Do the same two or three times, and that deer will find a place where they aren't disturbed so often. I'm aware how difficult it can be to circle a few spots on a property — especially a small one — and say, "We're not going in there," but doing so can make a huge difference. In the past seven years, my neighbors and I have tagged four mature bucks that spent most of their time on 40-acre tracts, and I'm convinced they did so because we gave them the cover and space to feel safe living there.

Spread the Banquet Table

It's no secret that whitetails are slaves to their stomachs. They are on a constant hunt for food and are more likely to hang out where that search is easiest. This makes food plots an integral part of attracting and holding deer to a small property. Of course, establishing and maintaining food plots is more complex than simply scattering seeds on the ground, and there are few better resources for doing it right than this magazine and whitetailinstitute.com. After planting dozens of food plots each year for the past decade, here are a few basic guidelines I like to share with folks getting into the fun.

First, don't ignore the basics of soil testing and using the results and recommendations of those tests to apply the proper lime and fertilizer. It's such an easy step to skip, especially because most of us have limited time and are often in a hurry to get seeds in the dirt. But with some extra planning and a few more minutes out of your schedule, you can complete these fundamental steps, and that results in healthier plants that taste better to deer and better hunting for you.

I vividly remember one of the first brassica food plots I planted. I hurried the process by skipping the first steps and was pretty pleased when the seeds germinated in a fresh rain and popped out of the ground within days. But several weeks later, the once-green seedlings were turning an interesting shade of purple that looked nothing like the brassica pictures I'd seen. One of my food-plotting buddies took a look at them a week later, laughed and said, "You didn't lime and fertilize, did you?" I was busted, and I'd learned that laziness only gains you time on the front end.

Another thing I've learned to appreciate is to offer a mix of annuals and perennials. One of the most frequent questions I get in seminars is, "What should I plant in my food plots?" That usually means the attendee wants me to name the red-hot secret plant that does it all for deer. And the red-hot answer (which is no secret) is there isn't such a plant. Deer are notoriously fickle feeders, and they're amazing in their ability to know what their bodies need at a given time. In my book, this makes planting a variety of offerings the best approach. Perennials such as Imperial Whitetail Clover and Fusion are excellent for meeting the nutritional needs of deer during most of the year, and annuals make sense in other periods. For this reason, I like to have multiple smaller plots instead of one or two large ones. I can offer deer more variety and also increase my hunting opportunities by having multiple setups that let me rotate pressure and adapt to varying winds and situations.

Mineral Rights

Mineral licks aren't far behind food plots on the list of hotspots hunters hope to create on their properties. I'm somewhat torn on the importance of minerals to deer, at least the degree to which some hunters rely on them. For example, if you think that frequent visits to a mineral lick will catapult a 130-inch buck into the B&C stratosphere, I believe you're delusional. But if you believe a healthy dose of mineral will help an already-good buck further express his potential, I agree. I live among farmers who raise beef and dairy calves into productive members of their respective societies, and because they feed mineral to those baby cows, who am I to argue with the experts?

But in addition to helping a buck be all it can be, mineral licks serve a couple of other hugely important purposes. First, I have seen dozens of mature does adopt mineral licks as their own, revisiting them with a frequency that borders on the obsessive. Because those visits often occur when a doe is nursing her fawn(s), it makes sense that mineral licks fulfill a need those nursing does are trying to meet. Although I don't get particularly excited about trail-cam pics of a doe at other

times of the season, I celebrate when I get those photos at a mineral lick in late spring and early summer. I recognize that doe has a baby (or more) nearby and that my lick is helping her replenish her physical needs after birthing those fawns. And more fawns equal more deer, which equals more nice bucks.

Second, I believe mineral licks, which are typically located close to my perennial food plots, can help a good buck adopt that area as part of his world. Remember, late spring and early summer are when deer are moving a lot, dispersing into areas that will become important to them as summer morphs into fall. If a dispersing buck wanders into my mineral lick, he's also not far from one of my clover food plots, which can turn into a central part of his world as he figures out where he wants to live for the next several months. I recognize I have zero control over where a dispersing buck chooses to live, but I know the better I make my property look, the better chance I have of making a potentially great buck declare, "This is home."

The Water Draw

For the longest time, I bought into the conventional wisdom that deer met most of their water requirements via their food. That can be true at some times of year, but during other times, deer are thirsty critters that seek water sources, especially within their core areas.

The big mistake most hunters make is believing the crystal-clear water we drink is the stuff whitetails desire. Nothing could be farther from the truth.

I know this because of the country I hunt. In the bluff country of southeastern Minnesota, northeastern Iowa and western Wisconsin, the only clear-water sources available to deer are streams flowing in valley bottoms or conservation ponds established by farmers on field edges. Deer visit those spots occasionally, but they're far more attracted to water sources close to their core areas. And experience has taught me that even a muddy puddle close to a bedding spot is more desirable to deer than a crystal-clear source they have to travel to find.

This is important to hunters, too, as we can focus on water sources near cover. And if those don't exist, we can create them. My father, who recently celebrated his 90th birthday, has killed three mature bucks in consecutive seasons from the same stand. That stand overlooks a tiny pond we dug four years ago, and it has become a major attraction for every deer on that property. For the price of a few hours with a pick and shovel, we took a good stand setup and turned it into a killer spot. We've spiced up the water draw more by adding mock scrapes and a mineral lick, and I'm convinced that trifecta is responsible for prompting deer — bucks and does — to make consistent visits.

Conclusion

Like many hunters, I spent a long time believing it took large acreages to attract and hold mature bucks. After all, these big-ranging brutes typically had home ranges of a square mile, so what could I do to make 100, 80 or even 40 acres a critical part of a buck's life? But I've learned, through hard work — and more than my share of dumb mistakes — that by giving a mature buck the things that are important to him, he can have a small acreage on his brain for much of his life. And when one of my hunting buddies or I tag a deer like the Flyer Buck, it makes for a gratifying experience.

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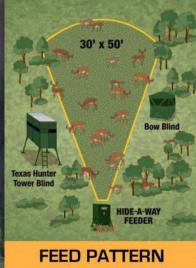


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TEXAS HUNTER

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TROPHYFEEDERS

\$14 CAN DELIVER YOUR BEST HUNTING EVER

(And Peace of Mind)

By Whitetail News Staff

hen compared to the total amount we spend each year on hunting, the \$14 cost of a professional Whitetail Institute laboratory soil test is extremely small. Even so, that tiny expense can yield a wide array of benefits to your hunting as well as your peace of mind.

Benefits to Hunting

It's no secret that in most cases, high-quality food plots are the best way to quickly attract deer to a property. It stands to reason, then, that if we want to maximize attraction, our food plots need to be as lush, thick and palatable as possible. Of all the factors you can control to maximize forage growth, making sure soil pH and "soil fertility" (the levels of essential nutrients in the soil) are optimum is the most important and can only be addressed with complete accuracy by a qualified soil testing laboratory.

The importance of soil pH and fertility and their interaction is one of the most important things in food plotting, and it's easy to understand why. Obviously, forage plants must be able to freely uptake nutrients from the soil if they are to grow optimally. There are two parts to that: (1) the essential nutrients must be present and at optimum levels in the soil, and (2) they must be freely available for uptake.

First Key Understanding: Soil pH plays a critical role in forage growth. Nutrients in the soil are free for uptake by high-quality forage plants only if soil pH is neutral (6.5-7.5). Acidic soil pH (soil pH below 6.5) acts as a roadblock to nutrient uptake in that soil nutrients are bound up in a way that plants can't freely access them. Low soil pH can be corrected by disking or tilling the appropriate amount of lime into the soil in advance of planting.

Second Key Understanding: There is no standardized chart that tells you precisely how much lime you should add to your specific soil based solely on its existing soil pH because soils widely differ in their ability to hold lime activity.

Third Key Understanding: Soils also differ widely in the levels of essential nutrients they hold and in how well (or poorly) they can hold the fertilizer you add.

Fourth Key Understanding: Fertilizer needs aren't the same for all types of food plot plantings.

When you consider all that together, you can see that a laboratory soil test's greatest benefit to ensuring optimum food plot growth is its accuracy. Lime and fertilizer recommendations in a laboratory soil test report are developed by analyzing the actual soil from your plot to determine its existing soil pH and fertility, the soil's ability to hold lime and fertilizer, and the specific fertilizer requirements of the planting. That accuracy lets you ensure that

your food plot planting can

attractive as possible.

grow thick and lush and be as

Peace of Mind

Your Wallet! We've talked about the benefits of precision in determining what lime and/or fertilizer your food plot may need. Consider that this precision also lets you avoid buying lime and fertilizer that you really DON'T need.

To explain, each Whitetail Institute food plot product comes with a set of seedbed preparation and planting instructions right on the bag, and they aren't all the same. As I mentioned earlier, all forage plantings for deer don't have the same optimum fertilizer requirements. Recognizing the importance of ensuring optimum soil pH and fertility, and that laboratory soil testing may not be available in a limited number of situations, the Whitetail Institute also provides default lime and fertilizer recommendations in each set of instructions. It's important to understand that these default recommendations are designed to cover the majority of cases. If the default recommendations are precisely what's needed in a given case, it will be purely a matter of chance.

Anyone who has ever planted food plots knows that lime and fertilizer can be expensive. If you don't actually need to add lime and/or fertilizer to the seedbed, a laboratory soil test will tell you that with complete accuracy, which helps you avoid buying lime and fertilizer you really don't need.

Risk Management. When you think about it, peace of mind is a benefit that comes from effectively managing risk - eliminating risks that can be eliminated, and minimizing risks that can't. By performing a laboratory soil test and following its lime and fertilizer recommendations, we can eliminate the risk that our forage plants won't have free access to all the nutrients they need.

To long time readers of Whitetail News, that's nothing new. It occurred to me, though, that we may not have covered another risk-management benefit of using a laboratory soil test to ensure that soil pH is optimum before planting. This realization hit me when I thought of calls I occasionally get from customers who didn't properly address soil pH before planting and experience problems later. Most often, the complaint is that the planting isn't growing as well as it should. To raise soil pH, lime should be incorporated into the soil by disking or tilling, which is problematic when you don't want to damage or kill a forage crop that has already been planted in the site. Had these customers properly ensured that soil pH was neutral

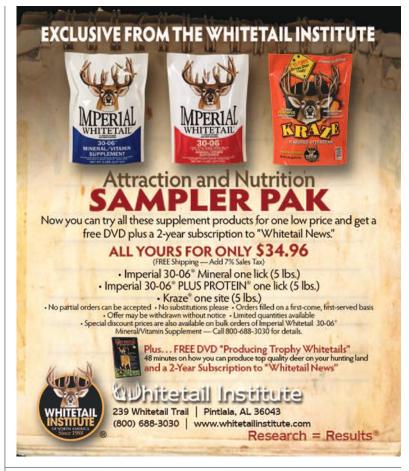
Conclusion. The Whitetail Institute's laboratory soil testing service provides all the accuracy of laboratory soil tests performed by agricultural universities, county agents, and farm supply stores. The difference lies in the structure of the Whitetail Institute's laboratory soil test report. Unlike soil test reports designed for commercial farmers, the

before they planted, the problem would

have been avoided.

Whitetail Institute report is designed specifically for food plotters and is extremely easy to read and follow. Whitetail Institute soil test users also consistently comment on how quickly they get their results back from the lab (especially when they provide an email address on the soil-submission form that comes in the kit). And finally, whether you use a Whitetail Institute soil test kit or another laboratory soil test kit, you can get quick, accurate assistance from the Whitetail Institute's consultants if you have any trouble understanding the report. The consultants are available to answer any questions you may have regarding soil testing or any other food plot related questions.

You can find out more about the Whitetail Institute soil test kit such as how to prepare it and what the report looks like at whitetailinstitute.com. If you have any questions, please contact the Whitetail Institute's consultants at (800) 688-3030.



Whitetail Institute

Professional laboratory soil testing is one of the most important things you can do to ensure the success of your food plots. The Whitetail Institute offers professional laboratory soil test kits which provide results and recommendations for all Imperial Whitetail products or any other type seeds. (Complete instructions and all related information will come with each kit.) Test results include pH. phosphorus (P) and potassium (K). Specific and accurate fertilizer and lime recommendations for maximum performance from your plantings will be provided. The average turnaround time is 24-48 hours after our lab receives the sample. Another huge benefit to soil testing is, it can save you a lot of money by helping you avoid unnecessary fertilizer and lime expenses



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By addressing these six problem areas, you can drastically improve your food plotting results.

> By Bob Humphrey Photo by Charles J. Alsheimer

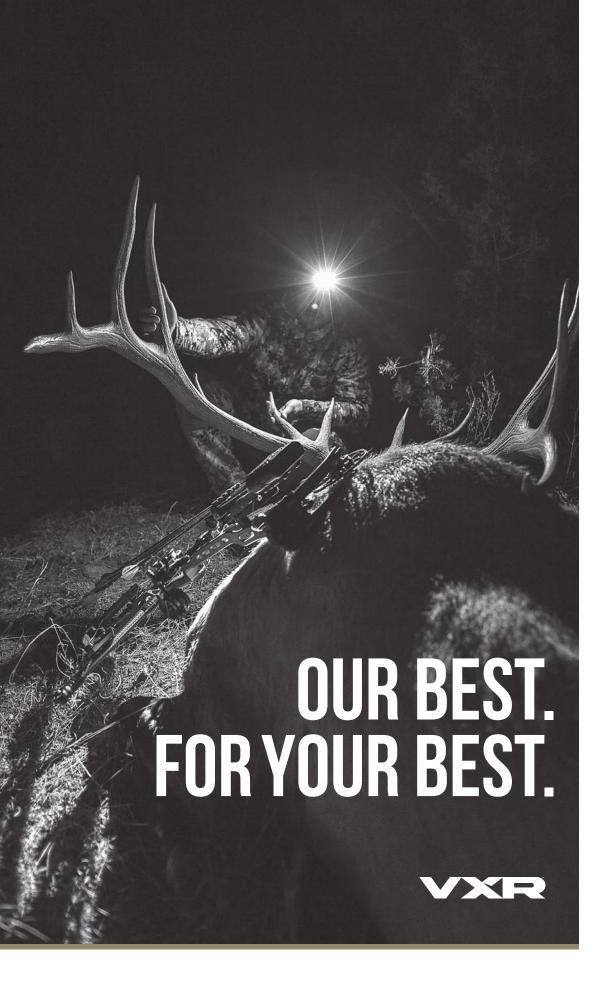
stablishing and maintaining productive food plots is not a casual undertaking, unless you're not too concerned with results. But if that's the case, why bother? Most folks who plant plots want optimum performance and benefit and knowing why their efforts sometimes fall short can go a long way toward seeing that they don't. What follows are some of the most common problem areas and how to address them for better results.

Planting P's

We'll begin with the general and then move to specifics. This first one is perhaps the most important because it incorporates the others. Just remember the five Ps, or in this case, six: Proper planning prevents poor plot performance. If you attend to that, remaining issues are largely beyond your control — such as weather.

The first step in any food plot program should be planning. Start with a comprehensive short and longterm plan rather than simply striking out with a tractor and bag of seed. You can always modify the plan as







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goals or conditions change, but your efforts will be much more efficient if you have specific objectives.

Soil Testing

Moving to specifics, the biggest reason for food plot growth failure is also the least expensive and easiest to fix — soil testing. And it's a two-step process. The first is simply conducting the test, which takes minimal time and effort yet is so important.

"Even if you do everything else exactly right, there's a reasonable chance you'll get a marginal crop or a failed crop without conducting a proper soil test," said Steve Scott, Whitetail Institute senior advisor.

The second step involves following the recommendations provided with test results. "Once you get the soil fertility and pH right, all the rest of your efforts can pay off at an even higher level," Scott said.

Seed Selection

The next step — and it's crucial — is matching seed to soil. Scott noted this is more important with perennials but matters with most all food plot choices.

"If you have good heavy soil that holds moisture, there's nothing better than Imperial Whitetail Clover or Fusion," he said. "On the other hand, if you have more well-drained soils, like on the side or top of a hill, you should plant something more deeper rooted, like Alfa Rack Plus or Extreme. And all brassicas do better on well-drained soil."

Again, planting in the wrong soil type likely won't result in complete failure, but even in the best conditions, you won't get the most out of your time, money and effort.

Consider the benefits of blends, particularly in marginal areas. Soil moisture and temperature conditions can sometimes vary considerably within and between seasons. Blends offer a hedge against extremes, where one variety, such as clover, might thrive in an exceptionally wet spring, but another, such as chicory, is more likely to provide more growth during a more dry time.

Prepping and Planting

Another important part of the process — one where people often go wrong — is proper site prep. What you can and should do before you plant obviously depends on conditions, but as Scott pointed out, "The better job you do of preparing your seedbed, the better the performance of your plot, both short and long-term."

Start by ridding the site of as much existing vegetation as possible before putting seeds out.

In a field situation, that might mean herbicide followed by disking. If it's a brand-new plot, you might want to spray before and again a week or two after disking, as dormant seeds often germinate in newly turned old fields. If it was previously wooded, timber harvesting and pulling stumps often provide enough soil disturbance to follow with a light application of herbicide. You can follow that by applying the lime and fertilizer recommended by soil testing and properly incorporating them into the soil as best as you can before the planting.

Selecting the right seed for the soil conditions is important, but you also need to cover or not cover that seed properly. This is probably the most specific of the six variables. Fortunately, it's also one of the easiest to properly address by simply following the recommendations

for the specific seeds you are using. Scott offered several examples of small seeded plants, such as those in Imperial Whitetail Clover, Fusion and brassicas.

"They need to be sown on top of ground or LESS THAN 1/4 inch deep," he said. "Bigger seeds, like Whitetail Oats Plus, need to be planted deeper; 3/4 to 1 inch."

Also it's important, according to Scott, that you stay close to the recommended seeding rate, especially with blends.

"You can vary a little, but stay as close as possible," he said. "Too little seed leaves too much space for weed and grass competition. Too much (seed) creates a situation where there are too many plants crowding root space often resulting in smaller, stunted plants."

Maintenance

You've picked the right spots, properly prepared the seedbed with recommended lime and fertilizer, matched seed to soil conditions and planted them at the right depths. You're done right? Wrong! During the spring and summer, perennials need a little TLC (maintenance). This includes an occasional mowing if the deer aren't keeping it mowed down and if it's not too hot and dry. Mowing helps prevent weeds from seeding out which would create more competition in the future

Another optional maintenance step that can help your perennial food plots flourish and last for a few more years is using selective herbicides such as Arrest Max to control grass competition. Slay is also a great selective herbicide to control broadleaf weeds.

As noted, these factors are interrelated, and you can often reduce the level of required future maintenance with proper initial site prep.

One of the most important maintenance steps is maintaining proper fertility and pH. The best way to make sure you do this right and have the longest lasting and best performing food plots is to do a soil test (for an established planting) and add whatever is recommended from the soil test results. (You can also follow the general recommendations on the bag or at whitetailinstitute.com) Aside from too much or too little water, over which you have no control, the most common source of poor food plot performance is a specific lack of soil nutrients.

More Planning

That brings us full circle to planning, a process that never ends. When your baseline is established and you start implementing your plan, you'll begin to see where some things worked better than others, and you can modify as necessary. You should also be planning for the future with crop rotation, food plot expansion and other plotting activities that will positively affect future efforts.

Through time, you will become more familiar with potential pitfalls. Then it becomes a matter of more maintenance — in this case maintaining the proper level of effort and attention to details. And to my mind, there's no better place or time for future planning than sitting over one of your plots during hunting season.

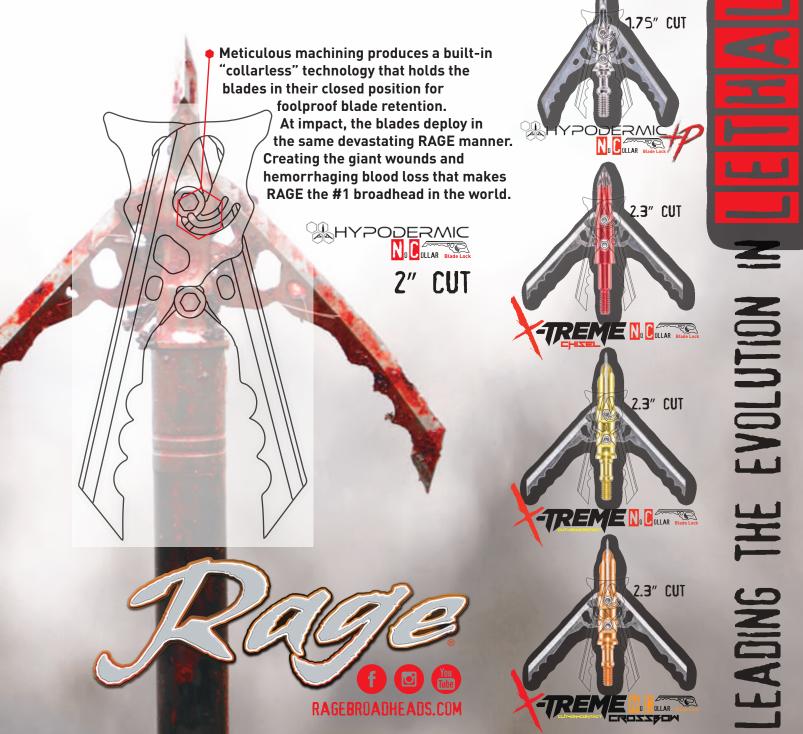
The other variable, over which you have no control, is Mother Nature. But if you concentrate on the first five, you should expect to have your best hunting ever. If you have any questions, you can always call (800) 688-3030 from 8 a.m. through 5 p.m. CST and let one of the experts at the Whitetail Institute walk you through each step to make sure you are as successful as you can be.

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Whitetail Institute RECORD BOOK BUCKS...

James Anderson - Kansas

I recently purchased 160 acres of ground with no food source for deer, so I did what everyone else does and put out a feeder and camera to see what was in the area. After several weeks I came back and checked the pictures only to be disappointed in the size of the deer and the lack of bucks. I tried putting in a food plot in the spring with no luck, so I contacted the Whitetail Institute, and they suggested soil sampling, and eventually I tried No-Plow along with Beets & Greens. I wasn't expecting much since I had no luck with the earlier food plot. But after two weeks I returned and was pleasantly surprised to see the food plot was already 2 to 3 inches high. I checked my camera and had more deer than before. By the time hunting season came around, I had multiple bucks over 160 inches coming to the food plot daily. I had a limited time to hunt with my son Reece during rifle season, and on his second day he killed a 13-point, 180-inch deer. It was a special moment that neither one of us will ever forget. This wouldn't have happened without the products and expert advice that I received from the Whitetail Institute. I can't wait to see what next year brings after a full year of using Whitetail Institute products.



Tom Dial - Illinois

I've been using Whitetail Institute products since the late 1980s. I use Imperial Whitetail Clover for year-round quality food and Pure Attraction and Ambush for my fall and winter plots. My sons and I have had great hunting for many years. I got lucky again this year. Last year, you published a story showing my 175-inch buck I killed.



his year, I killed this buck, measring 168 inches, (photo 1) with ny bow. He was traveling about 0 yards south of one of my Pure ttraction fields. The Pure Attracion plot stays full of does and mall bucks, and that helps keep hese bigger bucks nearby. I hunted his stand 6 times this year and I aw two other bucks this size or igger. During the shotgun season, ny sons killed two more good ucks. My oldest son, Andrew, illed a 145-inch buck cruising the

rure Attraction piots (photo z). On the same day, my youngest son, Brandon, killed a 174-inch buck on one of our other Pure Attraction plots (photo 3). Thanks for the great products, Whitetail Institute.





Larry & Tyler Porter – Kentucky

We have used Whitetail Institute products for more than 10 years. There's no better clover than Imperial Whitetail Clover. God allowed my son, Tyler, and me to reach a lifetime dream of killing a Boone & Crockett buck on our own property. Imperial Whitetail Clover helped us achieve this lifetime dream when Tyler killed this 19-point, 179 5/8-inch buck.



Luke Wolf - Iowa

My best friend and I have been using Whitetail Institute products for years. We really like Alfa-Rack Plus and Pure Attraction. My best friend harvested the buck in the trail-cam pic (photo 1) this past shotgun season. It scored around 160 inches. I harvested the big brow-tine buck in (photo 2) from the same stand the year before. He scored 161 inches. The stand overlooks an Alfa-Rack Plus plot. The Alfa-Rack Plus plot was planted four years ago in one of our worst drought years and it is still doing great. This past season we also killed a wide 9-point on a Pure Attraction plot during the late muzzleloader season and another great buck in an Ambush plot. There is no doubt Whitetail Institute products are attractive to whitetails. I tell a lot of my buddies about Whitetail Institute.





Stacey Geik – Michigan

Thank you Whitetail Institute for the best food plot seed anywhere. My family works extremely hard all year long to create the ultimate whitetail habitat. Over the years, we have used several Whitetail Institute products, including Imperial Whitetail Clover, Winter-Greens and Whitetail Oats



Plus. Seeing lots of deer on every hunt helps compete against the fast pace of life and keeps our kids hooked on hunting too.

We own two small farms in southern Michigan, an 80-acre piece and a 100-acre piece. They are only seven miles apart, so I am able to drive the tractor back and forth, as the work load increases every year with new ideas and management techniques.

Our goal is to grow, hold and see lots of healthy deer and big bucks during daylight. Water, lots of sanctuary cover, smart stand sets and Whitetail Institute food plots are the key to keeping the bucks on our small farms rather than the neighbor's. Our food plots are the best food sources around, and that's thanks to Whitetail Institute products and hard work.



Enclosed are pictures of my brother Jeremy with a 154-inch bow kill and a wall of mounted oucks at our odge.

Steve Stockman – Missouri



It's no secret that I have a sickness and burning passion for hunting big mature whitetail deer. It doesn't always — or should I say, almost never — happens like you have it dreamed up, but when it does, it's simply humbling and gratifying. Early in the year, a friend and I were fortunate enough to purchase a 160-acre property that was mainly crop ground but also had two abnormal areas that were not being used for ag. This 160 was adjacent to another property I have managed and hunted for a few years. We decided to plant a small kill plot on the 160, and we planted Vision in it.

"HushHush" was a deer I had known for three years and hunted the past two seasons. He was a smart 5-1/2-year-old which I had put in countless hours of preparation and thought trying to harvest. On the evening of Sept 28, we had a cold front pushing in, and I headed to the blind in hopes that it would have him up on his feet during daylight. I hadn't had a daylight pic of him since September 5 — but the last daylight pic I did have of him was on the new Vision plot, so I decided to stay focused and hunt him only when the conditions were right in that location. I slipped in at 4:30 p.m. and had deer on the plot within just a few minutes of settling in. Around 5:45 p.m. a 3-1/2-yearold 8-point and a 4-1/2-year-old 10-point came into the plot and started sparring. Hush had walked the north edge along the corn and circled back to the plot to make sure these guys knew he was the man. He pinned his ears back and marched in to 45 yards, and I came to full draw. The deer I had been hunting for two years now was at 45 yards and facing me, I waited for him to turn, but when he did, he basically turned on a dime to keep the other bucks a safe distance from him. I then let down and just watched him walk away to 63 yards and stand there for what seemed like eternity. The other two bucks started to work off to my left on the edge of the timber and Hush decided to claim his plot. I ranged him one last time at 58 yards and then prepared myself to make that shot. I dialed my sight and drew back, he stopped on his own. I released and was fortunate enough to make a great shot. He ran 250 yards and as they say the rest is his-

I feel very blessed and fortunate to have the privilege to hunt a deer of this caliber. HushHush was a 5-1/2-year-old buck that scored right at 183 inches. I'll spend the rest of my life trying to kill another deer of this magnitude and will enjoy every second of it, I assure you! Www

Send Us Your Photos!

Do you have photos of a buck that qualifies for the Pope & Young, Boone and Crockett or your state record books that you grew or took with the help of Imperial products? Send it to us and you might find it in the Record Book Bucks section of the next issue of Whitetail News. Email your digital photos and a three to four paragraph story telling how you harvested the deer and the role our products played to:

info@whitetailinstitute.com

or send them to:

Whitetail News, Attn: Record Book Bucks, 239 Whitetail Trail, Pintlala, AL 36043

Whitetail Oats PLUS -

An Ideal Nurse Crop for Fall-Planted Perennials

By William Cousins

Photo by Charles J. Alsheimer

lanning on planting a perennial food plot this fall? It's a great idea because of the many benefits perennial food plots provide. If you do plant a perennial this fall, then you should definitely consider planting Whitetail Oats PLUS as a nurse crop with it. As you'll see, doing so can yield some substantial benefits.



At the outset, it may be beneficial to define exactly what we're talking about when we say "nurse crop." Basically, a nurse crop is a fast-growing secondary crop that's planted with a primary crop in the same seedbed. Here, we'll be discussing planting Whitetail Oats PLUS as a nurse crop for a fall-planted Whitetail Institute perennial as the primary crop. Whitetail Oats PLUS is an absolutely ideal nurse crop for this application. That's true for several reasons.

All Whitetail Institute food plot perennial seed products are designed to emerge and establish rapidly. Whitetail Oats PLUS does so even more quickly and, as a nurse crop, will help the food plot green up even faster and start attracting deer as soon

after planting as possible. Its rapid emergence, vigorous growth and extreme attractiveness also allow Whitetail Oats PLUS to take much of the early browsing pressure off the young perennial crop.

If rainfall is ideal after planting, both the perennial and the Whitetail Oats PLUS will perform together, offering a variety of food options in the same food plot. Planting a nurse crop of Whitetail Oats PLUS with perennials in the fall is also a great way to hedge your bets against the chance that Mother Nature will minimize rain after planting. Annuals by nature establish more quickly than perennials, so planting a nurse crop of Whitetail Oats PLUS with fall-planted perennials can act as a



case scenario happens and rainfall is minimal.

The plants in Whitetail Oats PLUS have fibrous roots, which help hold the soil in place while the perennials establish. Whitetail Oats PLUS also creates a microenvironment of higher humidity near the soil surface that helps reduce evaporation of moisture from the soil. This microenvironment, coupled with the water-holding benefits of the Whitetail Institute's Rainbond seed coating can provide even greater protection for the perennial seedlings as they sprout and grow.

Seedbed Preparation

Preparing the seedbed and planting a perennial with a nurse crop of Whitetail Oats PLUS is very easy. With a couple of simple exceptions, just follow the planting dates for the perennial you'll be planting. You'll just need to adjust the seeding preparation and planting instructions a little, as follows:

As with any forage planting, it's best to have your soil tested by a qualified soil-testing laboratory such as Whitetail Institute to determine exact lime and fertilizer requirements. If possible, have your soil tested several months in advance of planting so that you can add any lime recommended and disk or till it into the seedbed well in advance of planting. When you submit your soil sample to the lab, have the lab test for establishment of the perennial you'll be planting, not for the nurse crop. If no soil test is performed, then add a minimum of 2 tons of lime per acre to the seedbed. Do not skip this step! Making sure soil pH is neutral (6.5 or higher) is the most important factor you can control to ensure food plot success!

Remove as much grass and weeds from the seedbed as possible before planting. This can be done by disking, tilling and/or spraying.

Planting

Step 1. When you reach the day of planting, start by disking or tilling the soil again. Then, before smoothing the disked or tilled seedbed, put out the fertilizer as called for in your soil-test report or, if you didn't do a soil test, then put out 400 pounds of 17-17-17 or equivalent fertilizer per acre. Then, broadcast the Whitetail Oats PLUS seed at a rate of 30-45 pounds per acre for the nurse crop. (This rate is slightly less than half the normal seeding rate.)

Step 2. Once you have put out the fertilizer and Whitetail Oats PLUS seed, drag the seedbed to lightly cover the Whitetail Oats PLUS seed and fertilizer. This will also help smooth the surface of the seedbed sufficiently to prepare it for planting the perennial seed. (A cultipacker is not required, but if you have one, it's okay to cultipack instead of dragging to complete this step.)

Step 3. Once the seedbed has been smoothed, broadcast the perennial seed at its full seeding rate (shown on the front of the bag).

Step 4. Do not cover the perennial seed! If you used a drag at the end of Step 2, then do nothing further after you put out the perennial seed. However, if you used a cultipacker at the end of Step 2, then cultipack the seedbed again after putting out the perennial seed to help it establish good seed-to-soil contact.

With Mother Nature's cooperation, your nurse crop of Whitetail Oats PLUS will emerge quickly, and you'll see the perennials emerging soon after. As a final note, the planting instructions for Whitetail Oats PLUS, when planted by itself, call for an optional additional fertilization with 100 pounds of 34-0-0 or equivalent high-nitrogen fertilizer per acre 30-45 days after germination. This additional fertilization isn't necessary when Whitetail Oats PLUS is planted as a nurse crop because the perennial legumes will produce enough nitrogen to maximize the growth of both the legumes and the nurse crop of Whitetail Oats PLUS.

For more information, visit whitetailinstitute.com, or call the Whitetail Institute at (800) 688-3030 to speak with one of our knowledgeable in-house consultants from 8 a.m. to 5 p.m., Central Time, Monday through Friday. The call and the service are free.

Recipe for success

By Gerald Almy

Photo by the Author

rve never been good at family menu planning. Other than suggesting grilling burgers or steaks, I leave that to my better half. So, when Becky whips up something fancy that doesn't appeal to my meat-and-potatoes palate, I don't believe I have the right to complain. I simply swallow hard and say, "It's delicious."

But there's another kind of menu planning I love and to which I devote much of my free time: providing the most nutritious variety of food possible for the whitetails on our land. The aim is to meet all their food needs year-round, with as much variety as possible. The reasoning is twofold: to keep deer on our property as much as possible and help them reach their full potential, whether that means a heavy-racked buck or a doe that will raise healthy fawns.

Writing such a menu or recipe for success isn't difficult, thanks to the hard work of the people at the Whitetail Institute and the bounty of Mother Nature. And I've never had a deer dinner guest complain.

Providing a year-round bounty of forage is a relatively new concept for some in the hunting and food plot community. In

Continued on page 38



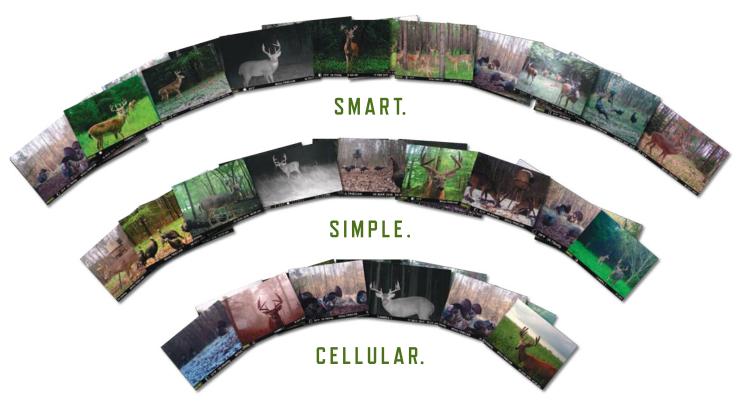




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AFFORDABLE PLANS



IMAGE RECOGNITION



SORT &



the not-too-distant past, food plot efforts were focused almost exclusively on fall and offering plants to attract deer during hunting season. But that leaves much of the year with sketchy or little food for the local herd.

Imagine if you went three, four or even eight weeks with nothing to eat or only food with low nutritional value. The negative effects on your health would be substantial. The same principle applies to deer.

How do you prevent that? By providing a menu that covers all seasons with varied food plots and as much native food as your land will support.

We'll lay out a recipe to do that, based on my 30-plus years of providing whitetails native forage and trying almost every new food plot product. On the food plot side, the menu for full coverage of the 365-day spectrum must include perennials and annuals. But that's just one part of the equation. The recipe for success must also include enhancing and nurturing the natural foods growing on your property through habitat manipulation projects and managing native browse. Besides the advice here, planning your 365-day menu will benefit tremendously from using the Product Selector tool on the Whitetail Institute's website. This interactive food plot planning app asks pertinent questions, including whether you can reach the site with cultivating equipment, the seasons during which you're planting, annuals or perennials and a few other questions to help you decide on the best product for each location on your property.

Here are some guidelines and some of my favorites for providing deer nutrition 365 days a year. Note that these food plot forages and natural foods will ideally be available at the listed time frames. The preparation of plots and manipulation of the natural forage should be done beforehand so they are there when deer need them.

January/February

This is one of the toughest seasons for whitetails in most areas except the South. Perennials such as Imperial Whitetail Clover are dormant or covered with snow in the coldest regions and nipped low in others. A great way to combat this is to plant Pure Attraction, which has brassicas mixed with Whitetail Oats, which can produce quality forage through this harsh time. Another option is to plant fields or sections of fields in straight brassica mixtures, such as Winter-Greens, Tall Tine Tubers or Beets & Greens. These will stand tall even under the snow, offering food even when winter looks bleak and barely habitable.

In more southern climates and even mid-country regions where winters are mild, Imperial Whitetail Clover can produce through those months. Whatever part of the country you live in, pure stands of Whitetail Oats Plus should be in the ground in some of your tillable land.

Natural foods: Hinge-cut low-value trees such as red maple earlier in fall to have some twigs and buds down at deer level. They will also provide cover and wind protection to help deer, especially if you plant a few conifers or cut and drag in a few cedars for additional cover.

March/April

In some areas, this period is even more challenging for whitetails than mid-winter. Natural green-up is starting in most areas but may not be far along in Northern regions. Those living in more moderate climates, like me, are fortunate. Imperial Whitetail Clover comes on like gangbusters during this time. Also, Alfa-Rack Plus is a fast-grower in spring. It's great for more well-drained upland soils. For a third perennial choice, Fusion plots provide a blend of Imperial Whitetail Clover and the Whitetail Institute's exclusive tender chicory, which will get taller and even more attractive as spring arrives in earnest.

This time of year also makes me glad I still have Whitetail Oats Plus in the ground. Lengthening days and warming temperatures give these cereal grains a flush of new growth in March, and they offer a tremendous bridge from winter's tough conditions to spring's full green-up. To be available in early spring, of course, these plots must be put in the ground the previous fall.

Natural foods: Fertilizing wild brambles, honeysuckle, greenbrier and other valuable edible shrubs and pruning back nearby trees that shade them in fall or winter will improve the output of these native plants as spring's warmth arrives. At no other time do shrubs and forbs hold as much nutrition as spring. Enhancing them by pruning, fertilizing and daylighting adds to their protein and total forage production.

May to August

Imperial Whitetail Clover, Alfa-Rack Plus and Fusion are all-important perennial food sources from late spring through summer and should anchor any food plot program. It might also be worth putting in a separate plot of Chic Magnet. Alfalfa and clover might slow a bit during the hottest days of summer if rain is lacking, but I've never had deer avoid these foods during summer, especially when chicory is mixed in, as with Fusion. For difficult soil conditions and especially dry areas, two standouts I turn to are Extreme and Edge, both of which have the Persist forb. Edge also has a sainfoin deer love, plus the Institute's WINA-100 forage chicory.

For landowners who can devote at least an acre or more to a plot, no forage that the Whitetail Institute has ever tested can compare with PowerPlant for this period when it comes to producing tons of high-protein forage. It complements perennial legumes such as clover and alfalfa during the frequent drought conditions encountered at this time.

With its carefully formulated mixture of peas, sunflowers, forage soybeans and sunn hemp, PowerPlant is the gold standard of warm-season planting. PowerPlant produces a massive amount of tonnage and high protein and can even continue providing nutrition into September or October.

Natural foods: Planting native edible shrubs and brambles when time allows will enhance your property and provide more food variety for whitetails. Deer will never feed exclusively in food plots. Like all animals, they need a mix of plants in their diet. Good shrubs for a property include chinquapin, beautyberry, chickasaw plum, strawberry bush, American honeysuckle and red osier or gray dogwood. Strip mowing sections of fallow fields alternated with un-mowed sections between is a good enhancement, as is disking strips of unused fields to allow native forbs, wildflowers and weeds to flourish.

September/October

This period is the one most food plotters pay the most attention to. After all, one of the major reasons for growing food for wildlife is to have that wildlife on your land during hunting seasons. Whitetail Institute products for accomplishing that include perennials and annu-

als. After the heat of summer, clover, chicory, and alfalfa products will come back strong as nights cool, stimulating new growth. Pure Attraction is a great combination of Whitetail Oats and WINA forage brassicas to plant in early fall. Whitetail Oats Plus will also be at its most tender stage during this period and will attract deer like a mag-

For areas with poor soil, low pH or dry conditions, several alternatives will produce well during this time. One of these is Extreme, with the proprietary Persist forb and WINA-100 forage chicory, which will hold up despite low rainfall while offering up to 44 percent protein. Edge is another good perennial choice for these conditions. It contains several of the plants in Extreme, plus tender X-9 grazing alfalfas and a sainfoin deer can't get enough of.

Winter Peas Plus is hard to beat for creating a hunting plot for early bow season. If you can't get tractor or ATV access, try No-Plow, Secret Spot or Bow Stand. In some areas, deer will feed on brassicas during this time, but with other options available, some deer might hold off until frost sweetens brassicas by turning their starches into sugars.

Natural foods: Hinge-cut trees provide deer easy access to the leaves and the tender tips of branches to help sustain them through winter. This is also a great time to plant extra fruit trees, such as persimmons, mulberries, apples and pears, or add a few mast-bearing oaks or chestnuts.

November/December

In most regions, Imperial Whitetail Clover is thriving and will be

used regularly by deer up to Christmas. Yes, the deer will dig through the snow to get to it. This time of year is also when brassica mixtures including Winter-Greens, Tall Tine Tubers and Beets & Greens become especially appealing as the starches in the plants convert to sugars, providing a sweet taste deer can't resist.

Whitetail Oats Plus will be flourishing during this period and attracting bucks and also does, which will entice rutting bucks to follow.

For areas that are difficult to reach with equipment, No-Plow, Secret Spot and Bow Stand will produce into cold weather because of the cereal grains and brassicas in those mixtures. For larger fields, go with the unbeatable appeal of Pure Attraction, which features Whitetail Oats to attract deer early in this period, and Whitetail Institute brassicas that skyrocket in attractiveness and sustain deer through winter.

Natural foods: Completely felled or hinge-cut low-value trees provide food and extra cover, as do stands of young conifers, which also offer thermal protection during this time. Also keep natural foods such as honeysuckle and grapes daylighted and in a few select locations near your stands. Fertilize them for extra production. Thin competition around persimmon trees.

Conclusion

There's the nutrition formula I've used for success on my Virginia land: Provide a wide variety of the best Whitetail Institute perennial and annual forages and as much native food as your property will sus-

Do that, and the deer will do the rest.



REAL HUNTERS DO THE TALKING

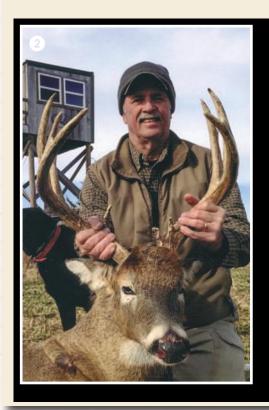
about Whitetail Institute products...

Iown 160 acres in Kansas that we manage for wildlife. Thinking all seed was the same early on, I used co-op seed and offbrand products for my food plot regimen. My results weren't bad, but nothing spectacular. For the past four years, I have used Whitetail Institute products exclusively, and the difference has been like night and day. I like all the Whitetail Institute products that I have used, but by far our best plots were the Whitetail Oats Plus and the Imperial Whitetail Clover. We have seen more deer year after year, which has led to more bucks. I also noticed that



they come out earlier in the evening more than ever before. We noticed the same deer coming back year after year, which allowed us to let them get to maturity. The size of our bucks increased as well, culminating this year when we took a gross-score 189-inch, a 181-inch, and a 160-inch. All were 6-year-old or older bucks. And all off of the same 160 acres surrounded by farm ground and very heavy hunting pressure. Whitetail Institute has always been only a call away when I had questions regarding my plots. The soil samples made it easy to know what was needed, and our Whitetail Institute food plot implementation was a major factor in our success this past season. I could not be happier with the results.

Billy O'Connor - Kansas

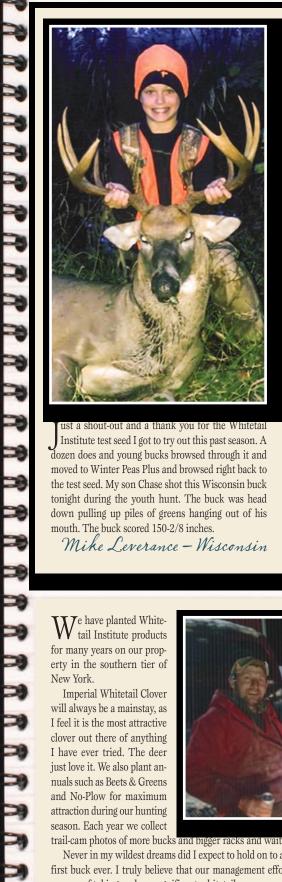






own 20 acres in Virginia with a small half acre food **↓**plot. With the guidance from my soil test, I have conditioned the soil to a pH level of 7. In the past, I never used any seed other than what they had down at my local feed and seed store. Two years ago I decided to give Whitetail Institute a try with their Whitetail Oats Plus. The food plot was amazing, and the deer were there every day and night on my game camera. On Nov 24 my daughter, Shelby, decided to grab her shotgun and walk to the food plot wearing her crocks and camo jacket. When she arrived two does ran out of the plot and then a huge 8-pointer walked out in front of her while her gun was on her shoulder. When he began eating the oats, she shot him. Shelby called and told me, "Thanks for feeding my deer, Dad." This was only her second deer ever. This fall, I once again planted Whitetail Oats Plus and now included Tall Tine Tubers with it as a blend. The deer will not stay out of it! Whitetail Institute has my business for a very long time.

Brian Staton - Virginia



ust a shout-out and a thank you for the Whitetail Institute test seed I got to try out this past season. A dozen does and young bucks browsed through it and moved to Winter Peas Plus and browsed right back to the test seed. My son Chase shot this Wisconsin buck tonight during the youth hunt. The buck was head down pulling up piles of greens hanging out of his mouth. The buck scored 150-2/8 inches.

Mike Leverance - Wisconsin



More deer, yes! Healthier deer, too, and my food plots benefit other wildlife, too. My food plots provide a hub of activity, including rutting. Imperial Whitetail Clover and Whitetail Oats Plus are great, and Tall Tine Tubers, Winter-Greens and Beets & Greens are also great during hunting season. A mix of all the above had the 2 bucks in the pictures held on the plots until the 12-point got driven off by the 10 point. After the 10 point was harvested (photo 1), the 12-point moved back in to finish off a great season.

Rye Eggerstedt -Michigan



We have planted Whitefor many years on our property in the southern tier of New York.

Imperial Whitetail Clover will always be a mainstay, as I feel it is the most attractive clover out there of anything I have ever tried. The deer just love it. We also plant annuals such as Beets & Greens and No-Plow for maximum attraction during our hunting season. Each year we collect



trail-cam photos of more bucks and bigger racks and wait with anticipation of the upcoming hunting season.

Never in my wildest dreams did I expect to hold on to a deer that my son, Derek, harvested on Nov. 28, this past season. It is his first buck ever. I truly believe that our management efforts along with the products from Whitetail Institute contributed to the success of taking such a magnificent whitetail.

David Cordner - New York

Send Us Your Photos!

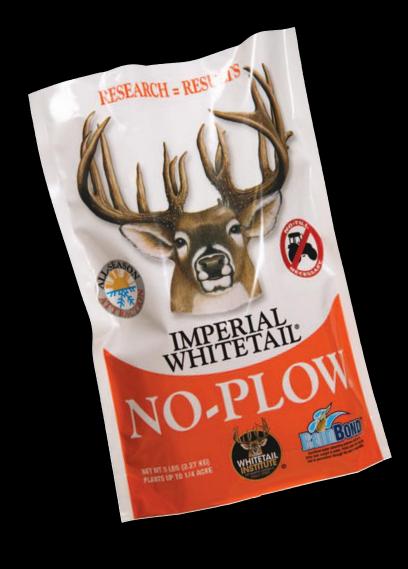
Do you have photos and/or a story of a big buck, a small buck or a doe that you took with the help of Imperial products? Send it to us and you might find it in the Field Tester section of the next issue of Whitetail News. Email your digital photos and a three to four paragraph story telling how you harvested the deer and the role our products played to:

info@whitetailinstitute.com

or send them to: Whitetail News. **Attn: Field Tester Response** 239 Whitetail Trail, Pintlala, AL 36043



Plow is the one of od plot products the ever offered. In and longest-running Whitetail ct lineup, right tail Clover. It owes three things: its s to deer, its y, and the hitetail Institute it.



Superior Attractiveness. As is the case with all Whitetail Institute forage products, you can be sure that No-Plow is exceptionally attractive to deer, and the reason is very simple: attractiveness to deer is the overriding forage-development goal of the Whitetail Institute. Other research goals include high protein, rapid stand establishment, early seedling vigor, and tolerance of cold, heat and drought. Even so, no matter how much protein a forage has, how quickly it establishes and grows and how well it can tolerate tough planting conditions, it will never — never — make it to Whitetail Institute product status unless it is, first of all, highly attractive to deer.

No-Plow is a blend of multiple, diverse forages. Each is highly attractive in its own right, and when they're combined in the exact ratios in which you'll find them in No-Plow, they're even more attractive. One reason is the different, yet complementary forage components in the product.

Forage grasses, annual clovers and brassica have always been the key component groups in No-Plow, and the reason is simple: These components' performance have continuously proven to be outstanding, and they continue to be a reason why No-Plow maintains its dominant place in the market. Most recently, the Whitetail Institute's new WINA 412 radish was added to No-Plow to push the early tonnage, late-season attraction and winter availability it features even higher. The radish's main functions are to add additional attraction and variety during the early season, serve as a nurse crop as the other forages develop, and provide an additional late-season food source. The radishes also provide a secondary benefit to soil quality: their thick roots leave spaces in the soil, which can be of great benefit in heavy soils that are compacted. Also, any radish tubers that are left after winter add organic matter to the soil as they break down at the end of the planting's life span.

No-Plow establishes and grows quickly, often appearing above ground just a few days after planting, and it starts drawing deer right away. Usually, deer tend to concentrate on the forage grasses first and then the clovers. Once the first frosts of fall arrive, the brassicas in No-Plow become even sweeter and continue to attract and hold deer into the coldest months of the year, and the radishes provide additional forage in both the early and late season. After winter, the annual clovers continue to provide much-needed nutrition for deer as they recover their winter health losses and bucks begin to regrow antlers.

Versatility

As its name implies, No-Plow can be planted either with minimal seedbed preparation or in a fully prepared seedbed. As such, it's an ideal option for turning skidder roads, log landings, pond dams and other non-tillable areas into superb food plots. And as well as No-Plow can perform with minimal seedbed preparation, it can perform even better in seedbeds that have been fully prepared with tillage equipment. You'll find instructions for both ways of planting No-Plow on the back of the bags and at whitetailinstitute.com.

No-Plow needs a minimum of three to four hours of broken, filtered or indirect sunlight a day. No-Plow is available in 9-lb. bags that plant 1/2 acre and 25-lb. bags that plant 1.5 acres. For more information on No-Plow, go to whitetailinstitute.com, or call the Whitetail Institute at (800) 688-3030.



Site Preparation Weed Control:The Starting Point, Not an Afterthought

Some weeds are not effectively controlled in food plots, and there is nothing in my bag of tricks to help. Herbicides for forages are limited, and multi-species forage blends complicate use. That might sound like a position of weakness coming from a career weed scientist, but it is undeniable. Knowing our weed-control limitations, successful management begins before forage seeds are planted. Additionally, new food plot locations are often in remote sites or where hunters have no prior experience, creating a Pandora's box of weedy unknowns. Preparing the site for a food plot requires a proactive plan and intensive effort. Site preparation weed control begins at that time, weeks or months before planting. This is an essential step in the successful shortterm and long-term management of troublesome weeds in food plots.

New food plot sites can be along old logging roads, ramps or any grown-up clearing large enough for a food plot. Regardless of the recent land use, there will be a proliferation of competitive plants in those areas, including briars, blackberry, vines, trumpet creeper and dozens of species of deciduous tree saplings sprouting from old rootstock. There are also the typical perennial competitors, such as common bermudagrass, quackgrass, johnsongrass, broomsedge and nutsedges.



Figure 1. Greenbriar is an example of a perennial weed that commonly infests new food plot sites. The perennating rootstock (that is, bulbs) defies control efforts. Tillage to chop the rootstock and systemic non-selective herbicides are synergistic in controlling perennial weeds such as greenbriar.

Mowing and Tillage

Mowing, which includes heavy-duty mulching using tracked vehicles, is a logical first step. Mowing or mulching rough areas will not kill saplings or any other perennial weed. However, mowing weakens perennial weeds, which greatly improves future weed-control efforts. Mowing enhances tillage by shredding the tops of tall plants improving the function of any tillage implement. Mowing also stimulates succulent regrowth, which is often more susceptible to herbicide uptake than older, tough foliage. This is an essential step for successful herbicide performance.

Initial tillage of rough non-improved sites is difficult and must be carefully conducted to prevent damage to equipment. This is a case where large (heavy-duty) disk harrows are the preferred choice. Harrow size refers to diameter of harrow blades and robustness of the

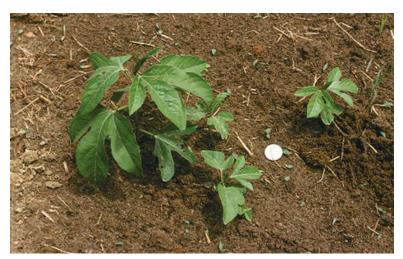


Figure 2. Maypop is another example of a perennial weed found in new food plot sites. The rootstock must be chopped by tillage and regrowth treated with non-selective systemic herbicides before seeding the food plot.

frame. Site preparation tillage is typically the site's first tillage in many years. This takes substantial horsepower and a heavy implement to cut through vegetative material and compacted soil. One tillage pass is rarely adequate for site preparation weed control.

Herbicides for Site Preparation

This is the best role for non-selective herbicides in food plots, and the focal point is glyphosate. Glyphosate is well known and highly versatile. For site preparation uses, glyphosate is systemic, meaning it moves through the vascular system of perennial weeds and woody saplings to kill the perennating rootstock. Steps must be taken to ensure maximum efficacy: applying glyphosate at a high rate suitable to control perennial weeds and when environmental conditions are ideal. Adding an appropriate adjuvant is also a wise investment. Refer to the glyphosate label for guidance.

When targeting woody saplings and vines, glyphosate should be tank-mixed with systemic broadleaf herbicides such as triclopyr and/or 2,4-D amine. These chemicals are powerful broadleaf herbicides that are synergistic with glyphosate, with amine salt formulations preferred because of improved mixing qualities. Triclopyr and 2,4-D improve brush control over glyphosate alone, with triclopyr being the superior tank-mix choice in terms of efficacy. An advantage of adding glyphosate is the control of annual and perennial grasses, which are not controlled by triclopyr and 2,4-D.

None of these herbicides have appreciable long-term soil activity at common use rates, which makes them ideal for site preparation before planting food plots. That said, there is always the disclaimer that confuses the matter. During certain conditions, triclopyr, 2,4-D and (to a far lesser extent) glyphosate can persist in the soil and injure desirable forages if seeded too soon after application. This is not a certainty, but it still warrants caution. A good rule of thumb is to apply combinations of triclopyr, 2,4-D and/or glyphosate at least four to six weeks before seeding the forage to minimize chances for injury. This is not as restrictive as it might seem on the surface. These herbicides, alone or in combination, need time to translocate in perennial species, which is necessary for adequate control. In other words, the delay between treatment and seeding the forage to ensure crop safety basically equals the delay needed for optimum weed control.

When everything goes according to plan, these herbicide combinations provide outstanding perennial weed control that is noticeable for about 12 months. Re-growth of deciduous saplings and other perennial weeds will eventually become evident, and retreatment might be needed. Retreatment can be spot sprays or broadcast treatment at lower herbicide rates. Eventually, food plots will need to be established, and initial forage plantings in these new sites should be annuals. Avoid planting perennial forages until adequate control of the woody perennial weeds has been fully achieved.

It should be emphasized that direct applications of triclopyr, 2,4-D and glyphosate will kill forages. These herbicides are used for site preparation weed control before planting food plots for a reason they are very active on broadleaf plants, and unfortunately that includes legume and brassica forages. There is little chance of injury when these herbicides are applied four to six weeks before seeding the forage.

Tillage, before and after site preparation herbicide treatment, amplifies herbicide performance. Tillage before treatments busts clumps of perennial weeds, weakens the infestation and reduces chance of regrowth. Additionally, tillage will stimulate succulent foliar growth in perennial weeds, which is conducive to herbicide uptake. Consider tillage and non-selective systemic herbicides to be synergistic; the performance of the combination is greater than the sum of the individual parts. Capturing the full benefits of this synergy is crucial for maximizing perennial weed control.

Targeting Annual Weeds

Site preparation weed control can be modified to help suppress populations of troublesome annual weeds before planting forages. Annual weeds reproduce solely by seed production, and site preparation weed control can strategically reduce numbers of weed seeds in the soil. This approach is frequent harrowing at biweekly intervals initiated several months before seeding the forage. Another term for this strategy is stale seedbed weed control.

The goal for stale seedbed weed control is to deplete the numbers of viable weed seeds in the soil before planting. Weed seeds in the soil might number in the millions per acre, and many of those might be dormant. Periodic tillage before seeding the forage will break the dormancy code for some weeds, and the seed will germinate. Subsequent tillage will kill emerged weeds and simultaneously stimulate a new flush of weed seed to germinate. If the tillage sequence is repeated frequently enough, eventually there is a significant reduction in weed seed numbers in the soil. Because this entire regimen is conducted before planting the food plot, allow adequate time (several months if possible) for the full benefit of stale seedbed tillage. Reducing the weed seedbank will make the overall food plot effort more successful, particularly for weeds that cannot be easily controlled in food plots using selective herbicides. These weeds include ragweed, smartweeds and pigweeds.

Site preparation weed control is another example of the need to be proactive. Hunting land often changes hands annually, and site preparation weed control might not be feasible in those cases. If land is owned or at least available long-term, site preparation weed control is a worthwhile investment and significant step toward establishing quality food plots in rough areas that are often highly desirable for hunting.

THE WHITETAIL INSTITUTE LABORATORY SOLLES TOOL

n it comes to making your food plots have thing they need to you have every reason white this would be with the word of the wo

ensuring that your food plot plants rients they need: soil pH and nutri-

ent levels in the soil. A laboratory soil test is the only way to ensure that you address both with absolute precision.

Soil pH is perhaps the most important factor in determining food plot success. Unless the soil pH in your food plot is at least 6.5 ("neutral"), nutrients in the soil will be bound up in a way that the plants can't freely access them. Unfortunately, most fallow soils are "acidic" (soil pH below 6.5) and should have soil pH raised by adding lime in advance of planting. To give you an idea of how critically important it is to ensure that the soil pH in your food plot is neutral before you plant, consider the effect of planting in soil with a soil pH of only 5.0. At that soil pH, your forage plants would only be able to access about

half the nutrients in the soil! If you translate that into human terms, and consider what sort of health you'd be in if you could only take in half the nutrients you need to thrive, you can see how important it is to address soil pH.

Likewise, the soil-supplied nutrients essential to forage growth (including fertilizer you put out) must be at optimum levels in the soil in order for the plants to access them. Also consider that "optimum levels" aren't the same for all types of forage plants, and the nutrient requirements for even one type can vary based on whether it's being planted or maintained. Further, all soils are not the same in their capacities to hold lime and fertilizer.

When you take all of that into account, you can see how important it is to get soil pH and the levels of soil-supplied nutrients exactly right. And there's a reason only a laboratory soil test can make extremely accurate recommendations of lime and fertilizer for your food plot: only a qualified soil-testing laboratory can analyze a sample of the soil from your plot.

And this extreme accuracy doesn't just benefit your plants. It also benefits your wallet by eliminating wasted lime and fertilizer expenses.

Why use a Whitetail Institute Laboratory Soil Test Kit? While any qualified soil-testing laboratory can give you precise lime and fertilizer recommendations, the Whitetail Institute's kit is different in the way it gives you the information you need. Unlike soil test reports that are designed for commercial farmers, the Whitetail institute soil test report tells you very clearly exactly what your soil pH and soil nutrient.

levels are, an how much l fertilizer yo add to the s any deficier allow your: flourish. Ot to use the V stitute soil t from our cu who use the peatedly he sults from t received qui with other s The resource able to call Whitetail Ir 800-688-30 get an exper when neede valuable.





Imperial Whitetail

WINTER-GREENS

The Most Attractive Brassica Planting Whitetail Institute Could Make

mperial Whitetail Winter-Greens continues to turn heads in a big way due to its unsurpassed attractiveness to deer. But that's no surprise, considering that from the very outset, the Whitetail Institute purposely designed Winter-Greens to be the most attractive brassica planting for deer the Whitetail Institute could make.

When it comes to brassicas, no one has more experience than The Whitetail Institute, who first started marketing brassicas as part of a food plot blend for whitetails in 1993. Over the years, the Whitetail Institute has continued to exhaustively research, develop and test new plant varieties under real-world conditions to meet specific needs identified by its Field Testers. One such need was for a late-season forage that would surpass the performance of traditional brassica

products — one that would not only survive cold temperatures and well-drained soils, but also be highly attractive, and for a longer period of time during the fall and winter.

The Whitetail Institute began testing lettuce-type brassicas and soon realized that they outperformed other brassica varieties by a huge margin. These lettuce-type brassicas comprise the backbone forage components in Winter-Greens. As it does with all its products, the Whitetail Institute tested Winter-Greens extensively before releasing it to the public. Tests were performed by independent researchers at our certified research stations across the country and at our company research areas on free-ranging whitetails, and the results were impressive to say the least. They showed that deer find Winter-Greens vastly more attractive than any other brassica product the Whitetail Institute has ever tested.

Whitetail Institute customers in many different geographical areas have observed time and time again that Winter-Greens is hands-down the most attractive brassica blend available. If you have been waiting for a forage blend that would perform outstandingly in well-drained soils and offer unparalleled attraction even under the snow and during the coldest winter months, your wait is over. Winter-Greens is what you've been looking for.

Winter-Greens is designed for fall planting only and is available in 3 pound bags that plant 1/2 acre, and 12-pound bags that plant 2 acres. Winter-Greens is designed for sites with medium to well-drained soils and at least 4 hours of filtered or indirect sunlight a

If you have any questions about Winter-Greens, visit whitetailinstitute.com, or call the

Whitetail Institute at (800) 688-3030. 👊

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Right When You and Your Deer Want It and Need It!









Whether you're looking for high-protein tonnage for spring and summer antler growth, attraction and energy for fall and winter, or sustained production through the coldest months of the year, the Whitetail Institute has annual food plot products specifically designed to meet your needs.

Includes seeds only available in Whitetail Institute products.

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Research = Results®



Thrive nutritional supplement is an incredible attractant, but unlike other attractants it is also a true nutritional supplement scientifically formulated for the unique needs of deer during the fall and winter. As such, it's an optimum tool for helping your deer minimize losses in health and body weights during those stressful seasons.

When it comes to supplements for deer, it can be tempting to focus heavily on spring and summer and less so on supplements designed for fall and winter. That approach can yield benefits, but any manager who truly wishes to maximize the antler size, body weights and overall health of their herd would be wise to develop a year-round strategy for nutritional supplementation. It's no secret that fall and especially winter can be rough on deer. Dwindling food sources, the rut and energy-sapping winter weather can take a heavy toll on deer health, and bucks can lose up to 20 percent of their body weight. Thrive is scientifically formulated with a specific balance of energy, protein, mineral and vitamin components to help deer maintain body weight and overall health during the fall and winter. It's nutrient-dense for winter stamina, helps deer maintain muscle mass, and helps replenish critical minerals and vitamins. It also includes antioxidant nutrients that help deer



maintain a healthy digestive system and aids in muscle and tissue recovery

Consider also that no matter where you live, your deer only have about 200 days during the spring and summer in which to grow antlers. Thrive doesn't extend this window, of course, since it is of fixed duration. Instead, Thrive helps your deer make the best use they can of the short antler-growing window. That's because antler growth in bucks is a secondary sex characteristic, meaning that it is secondary to something else, in this case recapturing health losses sustained during the previous winter. It stands to reason, then, that the better shape your deer are in after winter, the sooner your bucks can direct more nutrients toward antler growth.

Thrive is the fourth product in Whitetail Institute's 30-06 line up. The other three (Imperial Whitetail 30-06 Mineral/Vitamin supplement, 30-06 Plus Protein Mineral/Vitamin Supplement and 30-06 Mineral Supplement Block) are all designed to be used in spring and summer. They're scientifically formulated to provide the specific nutrition deer need to help push antler growth as close as possible to their genetic potential, keep does in top shape during the late stages of pregnancy, increase their milk production for newborn fawns, and promote overall herd health. Thrive now brings the Whitetail Institute's lineup of 30-06 products full circle by helping deer maintain body weight and overall health during the fall and winter.

FAQ

Can I use Thrive year-round? You "can," but it's optimum to transition between 30-06 Mineral/Vitamin Supplement or 30-06

Plus Protein during the spring and summer, and Thrive during the fall and winter.

When should I start my Thrive supplement sites? You should start your Thrive sites once bucks have hardened their antlers and cooler fall weather arrives. In most areas, this generally occurs in September or October. Continue feeding Thrive through the fall and winter until it is time to transition back to 30-06 Mineral/Vitamin Supplement or 30-06 Plus Protein as spring green-up occurs.

How many Thrive supplement sites are needed? Research indicates that you should provide a supplement site for every 40-100 acres of available land, depending on the size of your herd and quality of the habitat. Once you have observed the usage of your sites, you can better determine the exact number of total sites needed.

Where should I create my Thrive supplement sites? As with other 30-06 supplements, site selection is extremely important with Thrive. Deer prefer to be in cover, so select a site in a wooded area where deer feel safe, preferably just off a well-used trail, crossing, funnel or natural feeding area.

How can Thrive be used? Thrive is designed for use in ground sites, trough feeders and gravity feeders. Thrive can be used by itself or mixed with corn at a rate of 10-20 pounds of Thrive to 100 pounds of corn.

How much Thrive should I use in a site? When first creating a supplement area, use approximately 10-20 pounds of Thrive per site. Always keep the area well-supplied to encourage continued use by deer.

Caution: Thrive is so attractive to deer that some states consider it bait, so be sure to consult your local game laws before using or hunting



NUTRITIONAL STRESS

Why Some Bucks Fail to Reach Their Potential

By **John Ozoga**Photo by Dustin Reid

Thitetail deer exhibit something scientists call sexual dimorphism. That simply means the sexes differ in secondary and primary sexual characteristics. The fact that males grow antlers and females normally don't is one obvious difference.

The sexes also differ in other physiological and behavioral ways. Bucks prefer different habitats, have higher nutritional requirements for growth and have different seasonal fat-storage cycles. They also take longer to attain maximum body size and typically don't live as long as females.

When well-nourished, mature bucks are considerably larger than does of similar age. However, as quality of life declines, sex differences in body size diminish, because males tend to suffer more from poor nutrition.

Among the many indicators of deer range quality, there is probably none better than the physical size of young male deer. When poorly nourished, autumn-harvested male fawns will be only slightly heavier than female fawns. In fact, on very poor range, that weight relationship between the sexes will also exist among 1-1/2-year-old deer.

Why Bigger is Better

Large body size and large antlers tend to go together. Generally, the larger the buck, the larger the antlers. Large, physically superior bucks will dominate others and do most of the breeding. Although seemingly handicapped in winter because of their scant fat stores, the buck's large body size also contributes to greater metabolic efficiency and ability to withstand greater cold stress.

The size of the rumen in relation to body size will determine the quality of forage that can be digested. The larger the body size, the lower the basal metabolic rate per unit of body weight. This difference in body size between males and females lets bucks subsist on low-quality foods when nutritious ones are scarce — a real benefit during winter.



Also, because large-bodied bucks are better equipped to withstand cold-stress (Bergmann's Rule) they can occupy winter habitat separate from does and fawns, where the shelter might be relatively poor but the supply of browse is better.

Unfortunately, not all whitetail bucks attain their potential maximum size — not even at maturity — regardless of their genetic background. The reasons for undersized bucks vary. Aside from genetics and age, even social factors can influence a buck's growth rate and his ultimate size. However, seasonal shortages in nutrition, especially early in life, tend to be the primary reason so many bucks fail to do their best.

Life in the Womb

Young male whitetails are normally larger than females starting at birth. However, the mother's level of nutrition during pregnancy is an extremely important factor governing fetal growth, birth size and prospects for survival. Fetuses suffer when the mother must live on a poor-quality diet.

A pregnant doe burns fat to make up for nutritional shortages. As a last resort, she sacrifices bone and body tissues to nourish fetuses. Although does rarely abort fetuses, fetal growth slows when mothers are severely malnourished. The result is small or even stillborn fawns.

Early in gestation, inadequate nutrition retards twin fetuses equally. During the final one-third of gestation, one fetus often receives more nutrients, and the other might die. Or more likely, both fetuses will be born alive, but one is considerably larger and more likely to survive. Therefore, a male is more likely to be of favorable size at birth when the pregnant doe's nutrition is limited.

Newborn Fawn Mortality

There's a close relationship between the pregnant doe's nutrition, the size of her fawns at birth and newborn fawn survival rates. The difference of only a few ounces in a fawn's birth weight could determine if it lives or dies.

In studies at the Cusino Wildlife Research Station in Upper Michigan, well-fed pregnant does gave birth to fawns averaging 7.7 pounds. Only 7 percent died. Does with poor diets gave birth to fawns averaging 4.8 pounds, and 93 percent died within a few days.

Pregnant does require adequate protein in their diet if fetuses are to grow properly and survive. Studies conducted in Missouri, for example, reported a 42 percent loss of fawns born to does receiving a 7 percent protein diet, a 27 percent loss among mothers on a 12 percent protein intake and 100 percent fawn survival when does were fed a slightly higher percent protein diet. As expected, mothers on the high protein diet produced the largest fawns.

First-time mothers — generally 1 or 2 years old — tend to produce a preponderance of male fawns. Young mothers are also less successful in rearing fawns. However, when severely stressed, even prime-age does might lose twins.

Early Life

Compared to cow milk, deer milk is richer in fat, protein, dry solids and energy. Even a poorly nourished doe will produce high-quality milk, but she will produce less milk than normal. Or, if she is seriously malnourished, she might not produce milk.

Given an adequate supply of milk, fawns grow rapidly. They double their birth weight in about two weeks and triple it in a month. They gain nearly one-half pound daily. Initially, that requires about 750 grams of milk per day. That increases to about 1,000 grams at about one month old. It then declines steadily.

Clearly, to produce this enormous amount of milk — an average of more than two pounds daily for two months — a doe needs a highly nutritious diet. If not, she will show signs of acute physiological stress, her milk supply will dwindle and her fawns will grow poorly.

Numerous examples of poor fawn growth rates and even starvation of young fawns have been recorded. Such problems appear to be more common in droughty Southern ranges. However, in the Northern range, high deer density can also contribute to overbrowsing, or periodic droughts might "cure" vitally needed herbaceous forage, and serious nutritional shortages can stunt fawn growth.

Young Ruminants

Fawns become functional ruminants at about two months old, when the rumen-reticulum portions of their stomachs reach nearly adult proportions. Fawns older than 2 months devote much of their active time to foraging. In fact, some researchers propose that nursing by fawns at this time serves primarily to maintain the mother-fawn social bond and provides minimal nutritional benefit.

Therefore, late summer and autumn are critical times for growing fawns. This is also when young males have higher nutritional requirements for growth than females. Dr. Duane Ullrey, a prominent animal nutritionist at Michigan State University, found that male fawns need more protein during post-weaning. Although females require a dietary crude protein concentration of 13 percent, young males require about 22 percent for maximum weight gain.

Besides Protein, Fawns Need Minerals

Studies at Cusino found the growth of fawns slowed greatly or ceased when animals had marginal (two-thirds ration) or low (halfration) nutrition during a 10-week period ending in mid-December. Food-deprived fawns grew much slower, had smaller internal organs and stored less fat than high-ration fawns. Well-fed fawns were skeletally larger and also had abundant fat reserves. Although food-deprived fawns were small, they had surprising amounts of fat.

That suggests fattening in Northern deer is an obligatory process in autumn. Given poor nutrition, fawns sacrifice growth and shunt some nutrients into fat production. This also means inspecting fat reserves might not reliably indicate range quality.

From a practical standpoint, it's important to recognize that as natural forage declines in protein content, it also declines in digestible energy. Normally, if deer can meet their energy demands, they will probably satisfy their needs for other nutrients. Forages high in digestible energy are usually immature plants, which are low in fiber but high in protein, minerals and other essential nutrients.

On severely overbrowsed range, high-quality feed is generally in short supply, if not unavailable. As a result, fawns cannot or will not eat enough to meet their growth requirements. From what is known about deer metabolism and forage value, it appears that succulent herbaceous growth which can come from high-quality food plots and high-energy mast crops should be favored in autumn range management.

Nutrient Requirements for Maximum Growth

By John Ozoga

Poor nutrition obviously contributes to poor antler growth in whitetail bucks. Protein requirements for basic body maintenance of adult deer might be as low as 6 to 10 percent. It's assumed that protein requirements for antler growth are higher — probably 13 to 16 percent — and some say 16 to 18 percent but less than the 22 percent required for young male body growth.

Although bucks do not achieve their full skeletal size until 2-1/2 years old, poor body growth early in life is seldom made up later. Typically, small yearling bucks develop into undersized bucks with small antlers. Also, malnourished adult bucks are among the last to start antler growth and shed antler velvet but the first to cast (drop) their antlers.

As buck body sizes increase, metabolic rate and food intake per unit of body weight decreases, but antler size increases. Thus, the demands of the antlers upon the available nutrients seem to increase sharply.

Clearly, if a buck's body takes precedence over its antler growth and food supplies are limited, the stunting of antler growth would mostly affect the larger bucks. However, that's not the case. Because yearlings need more nutrients for body growth, as well as antler development, they are more likely to grow stunted antlers when nutritionally stressed.

Even so, the production of antlers is presumed to be a tremendous drain on the buck's system. According to world-famous antler researcher Dr. Richard Goss, there are two ways that growing antlers could affect mineral balance in the buck's body: "One would be for the deer to consume extra quantities of [minerals] during the period when the antlers are growing, thereby depositing materials directly into the developing antlers. Alternately, such minerals might be incorporated into the other bones of the body, later to be withdrawn and reutilized in antler construction. Investigators have confirmed that the latter mechanism is the method by which minerals are mobilized for antler growth."

Therefore, although mature bucks do not store excess minerals in their skeletons in anticipation of antler growth, they accelerate turnover of such substances during the antler-growth period. After the antlers harden, the minerals lost from the bones are replaced from the animal's diet.

The Yearling Buck

Remember, it takes a male whitetail longer than a female to achieve its full growth potential. By the time a female is 18 months old (yearling age), it has reached its full skeletal growth and about 80 percent of its mature weight. Given adequate nutrition, females reach mature body weights at 4-1/2 years old.

By comparison, yearling males are only at about 60 percent of their mature body weight and carry only about 10 percent of their mature antler weight. Male whitetails normally do not reach their full skeletal size until 2-1/2 years old. Maximum body weight is not reached until at least 5-1/2 years old. A buck normally grows his largest antlers when 6-1/2 to 8-1/2 years old.

In Michigan, studies conducted by Ullrey revealed that the level of nutrition young bucks experience during early spring, in the month before antler growth begins, greatly influences their autumn body size and first set of antlers.

Ullrey varied the diets of captive whitetails to simulate early (March) versus late (April) green-up. The early green-up group had better body weights, antler weights, antler beam diameters and main beam lengths. Therefore, in spring, early availability of energy-rich forage that is also high in protein, minerals and vitamins improves buck body growth and antler development.

Unfortunately, if a whitetail buck is stunted when he's one year old, he's destined to be a small-antlered yearling. More than likely, he will also be subpar when mature.

Results of Improved Nutrition

For many years, the square-mile Cusino enclosure was a classic ex-

ample of poor deer range. Forest growth and natural plant succession was as important as deer overbrowsing in decreasing the area's ability to produce large, healthy deer. Their physical condition improved sharply when they were given supplemental feed.

Although body weights of all sex/age classes improved with diet supplementation, males responded more dramatically than females. Female body weights increased 6 to 13 percent, depending on age classes, and male weights rose 20 to 34 percent. Dressed weights of male fawns increased from 58 pounds to 70 pounds, yearling bucks increased from 98 pounds to 127 pounds, 2-1/2-year-old bucks increased from 130 to 156 pounds, and 3-1/2-year-old bucks increased from 134 to 177 pounds.

The spread in average body weights between the sexes also increased. The field-dressed weight of well-nourished mature bucks was 199 pounds, and mature does averaged 128 pounds. In other words, well-fed mature bucks were an average of 55 percent larger than mature females. Before supplementing their feed, the sex difference was only about 20 percent.

Conclusions

Compared to females, male whitetails have higher nutritional requirements for body growth and are the first to show the ill effects of a poor diet. A buck's level of nutrition during the first year of life is especially important in determining his size at maturity. If a buck is stunted when he's one year old, he probably will not achieve his full potential body and antler size at maturity.

On the bright side, bucks respond more dramatically than does to improved nutrition. As nutrition improves, buck body size increases and sex differences in body size widen.

Managing SMALL PROPERTIES Can Lead to Results

By Jeremy Flinn

rowing up in the heavily hunted state of Pennsylvania, finding land to hunt was difficult, let alone land you could manage.

Though small, many properties I hunted had huge potential. I remember watching a lush bean field on a small property in July and August, and seeing velvet bucks pour out to feed on the high-protein forage. But as the season neared, the deer disappeared. It was obvious the deer were simply entering the property in summer to feed and likely bedded off the property, especially as home ranges expanded. It was extremely tough to find a small property that contained the three essential needs of deer: food, cover and water. However, that doesn't mean you cannot create a small-tract whitetail haven via management efforts.

Food was the attractant on the aforementioned property, but also an ever-changing limiting factor. As combines combed the fields, we lost the main food source and acres of cover. The property was already limited in cover, but when the crops were removed, the land was way too open, especially in a high-pressure state such as Pennsylvania. Sure, there were some pockets of thick cover, but they held deer inconsistently. When the food was gone, deer visited the area less frequently. If we wanted to be consistently successful, we had to make some strategic changes.

The small tract was planted each spring in a rotation of soybeans and corn, so summer food availability was strong, but as September arrived, the harvest began, and our chances of seeing a good buck waned. It's a lot more difficult to create cover than it is to add a Whitetail Institute food plot. So, we started with the easiest opportunity, which was to add some fall annuals that peaked in attractiveness as the ag crops were removed. Using Whitetail Institute's go-to mixes such as Winter-Greens and Pure Attraction, we created a diversity of forages that peaked at varying times throughout the early and late hunting seasons. The impact was immediate, as we saw more deer than ever during the season. However, because the plots were not as big as we would have liked, they were the main food source and Whitetail Institute blends are so attractive, deer hammered them. As we reached the critical months of February and March, deer were again left with little food on the property. Though it wasn't hunting season, the nutrition they take in during those months can be critical to antler growth, fawn recruitment and overall herd health the next year.

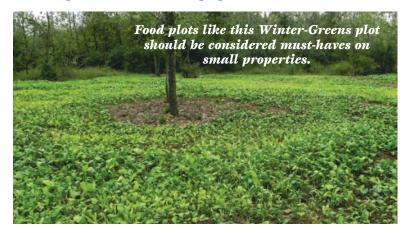
Understanding the function of a food plot seed blend is critical, not only with the growing conditions and peak attractiveness but also what it provides for deer and when. As our hunting situation improved, we turned our focus to the critical late-winter and early-spring months. Fall plots had faded, the new summer crops were yet to be planted. In such situations, having a plot or two planted in a perennial blend such as Imperial Whitetail Clover or Fusion will provide great forage in late winter and early spring, when not much else is producing. It will be one of the first things to green-up in the spring and it will continue to provide high-quality forage into summer, fall and into winter.

As you begin to plan food plot strategy, timing and type is extremely important. However, location — as it relates to access and property lines — might be just as important. The right type of food plot in the wrong place could reduce its value. On any small tract of land, hunting pressure is the No. 1 killer of deer hunting success. It's important to understand what you have to work with and use it wisely. It's equally important to only create disturbances when necessary.

It isn't nearly as easy to create long-term cover as it is to plant a food plot, but several options let you create cover that can provide supplemental bedding or better access while minimizing disturbance. Using a product such as Whitetail Institute's Conceal will let you establish a quick, thick visual barrier. This comes in handy when the only place to plant is near high human traffic areas or if you're trying to create supplemental cover for bedding. The ability to pop up a visual screen to access a stand and minimize the disturbance of the area when the location isn't optimum can make the difference in getting on a big buck.

One of the last needs for whitetails is water, though this might be one of the more limiting factors, especially depending on the time of year. Many properties might have a natural pond, bog or spring, but that's not always the case. If you are lucky enough to have one, your water situation is likely covered, except in drought conditions. If you don't have a water source, you likely have to get creative. The two main options are to bring in a water trough, typically above ground, which collects water and distributes it into a large trough for deer to consume. If your budget is tight, you might want to consider a manmade waterhole. You can accomplish this by simply burying a tub or digging a hole and lining it with a non-permeable pond lining or plastic.

Every property has limitations that act as barriers to creating a whitetail paradise. Based solely on size, larger tracts offer more opportunities to provide whitetails what they want. But that doesn't mean you can't create those opportunities on smaller hunting areas. It might take more creativity, but through dedication, you can create that whitetail paradise, even on small properties.





Imperial Whitetail Clover in combination with WINA-100 perennial forage chicory and 210 annual forage kale. It truly offers the best performance aspects of perennials and annuals all in the same planting.

Imperial Whitetail Clover (Perennial Component). Imperial Whitetail Clover, is the number one food plot planting in the world, and the reason is no secret: Imperial Whitetail Clover contains the only clovers ever scientifically developed for food plots for whitetail deer. The Imperial Whitetail Clover component, which contains the Whitetail Institute's newest proprietary clovers, bring the same year-round attraction and protein content to Vision. It's highly attractive to deer as soon as it emerges, it's cold, heat and drought tolerant, and it's designed to last for up to five years from a single planting.

Whitetail Institute's WINA-100 Perennial Forage Chicory (Perennial Component). There's only one way to say it: WINA-100 chicory is more attractive to deer than any other chicory variety the Whitetail Institute has ever tested. The reason can be summed up with one word: "palatability." As small-ruminant animals, whitetails aren't as attracted to and can't digest stemmy, waxy chicory varieties

rell as WINA-100 chicory, which remains more tender and ven as it matures. WINA-100 chicory is also deeply rooted, seven more drought resistance to the stand, and it boosts attraction by offering a variety of forages in the same food plot.

Whitetail Institute's 210 Kale (Annual Component). The Whitetail Institute's proprietary 210 Kale grows extremely fast and boosts early and late season tonnage even further. 210 Kale sweetens with the arrival of the first frost of fall, making it an excellent source of attraction and nutrition for deer during the cold winter months. And like WINA-100 chicory, the 210 Kale component in Vision boosts attraction even further by offering a variety of forages in the same food plot.

In short, Vision has been carefully designed by the Whitetail Institute to ensure that all its seed components work together toward a common purpose: maximizing tonnage and attraction in BOTH the early and late seasons, and way beyond. Then in the spring following planting, the Imperial Whitetail Clover and WINA-100 chicory components in Vision are some of the first things to green up, providing your deer with a highly nutritious food source at a critical time when they're trying to recover their winter health losses. As spring progresses and soil temperatures rise, the Imperial Whitetail Clover and WINA-100 chicory components flourish and produce tons of highly digestible, high-protein forage, which is crucial for antler development, body weight, fawn development and milk production. And again, Vision is a perennial that lasts up to five years.

Vision is packaged in 4-pound bags that plant 1/2 acre and 18-pound bags that plant 2-1/4 acres and is designed for fall planting in plots with loamy soil, clay or heavier soils. If you have any questions about Vision or would like to order, visit whitetailinstitute.com, or call the Whitetail Institute at (800) 688-3030.

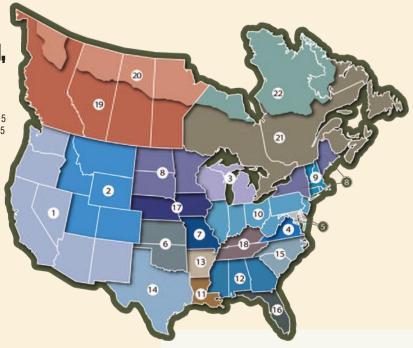
Food Plot Planting Dates...

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

- Call for planting dates
- Apr 1 July 1
- Apr 15 June 15 Aug 1 - Sept 1
- Coastal: Feb 1 Mar 15 Sept 1 - Oct 15 **Southern Piedmont:** Feb 15 - Apr 1 Aug 15 - Oct 1 Mountain Vallevs: Mar 1 - Apr 15 Aug 1 - Sept 15
- Feb 1 Apr 1 Aug 1 - Sept 30
- Feb 1 Apr 15 Sept 1 - Nov 1

- North: Mar 15 May 1 Aug 1 - Sept 15 South: Mar 1 - Apr 15 Aug 15 - Oct 15
- Apr 1 June 15 July 15 - Sept 5
- Apr 1 May 15 Aug 1 - Sept 15
- Mar 20 May 15 Aug 1 - Sept 15
- Sept 15 Nov 15
- Feb 5 Mar 1 North: Sept 5 - Nov 15 South: Sept 25 - Nov 15
- Feb 15 Apr 1 Sept 1 - Oct 30
- North: Sept 15 Nov 15 South: Sept 25 - Nov 15

- Feb 1 Mar 1 Coastal: Sept 25 - Oct 15 Piedmont: Sept 1 - Oct 5 Mountain Valleys: Aug 25 - Oct 15
- North: Sept 25 Nov 25 **South:** Oct 5 - Nov 30
- Mar 1 May 15 Aug 1 - Sept 15
- Feb 1 Apr 15 Aug 20 - Sept 30
- Apr 15 June 15 July 1 - Aug 15
- May 15 -July 1
- May 1 June 15 July 1 - Aug 15
- May 15 July 1



PLANTING DATES FOR VISION. PURE ATTRACTION. SECRET SPOT. WINTER PEAS, BOWSTAND, AMBUSH AND DESTINATION

- Call for planting dates
- Call for planting dates
- Aug 1 Sept 15
- Coastal: Sept 1 Oct 15 Piedmont: Aug 15 - Oct 1 Mountain Valleys: Aug 1 - Sept 15
- Aug 1 Sept 30
- Aug 15 Nov 1

- North: Aug 1 Sept 30 South: Aug 15 - Oct 15
- July 15 Sept 5
- 9 Aug 1 - Sept 15
- O Aug 1 - Sept 15
- M Sept 15 - Nov 15
- North: Sept 5 Nov 15 South: Sept 25 - Nov 15
- B Sept 1 - Oct 30
- 1 North: Sept 15 - Nov 15 South: Sept 25 - Nov 15
- Coastal: Sept 15 Oct 15 Piedmont: Sept 1 - Oct 5 Mountain: Aug 25 - Oct 15
- North: Sept 25 Nov 25 South: Oct 5 - Nov 30
- Aug 1 Sept 15

PLANTING DATES FOR WHITETAIL OATS PLUS

Use the map below 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

Aug 15 - Sept 15

Sept 1 - Oct 1

Sept 15 - Nov 15

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

- Call for planting dates
- Call for planting dates
- July 1 Sept 1
- Coastal: Aug 15 Sept 30 Southern Piedmont: Aug 1 - Sept 15 Mountain Vallevs: July 15 - Sept 15
- July 15 Sept 15
- Aug 1 Oct 1

- North: July 15 Sept 15 South: Aug 1 - Oct 1
- July 5 Aug 20
- 9 July 1 - Aug 30
- 1 July 15 - Sept 15 M Sept 15 - Nov 15
- North: Sept 5 Nov 1 Central: Sept 15 - Nov 15 South: Sept 25 - Nov 15
- North: Aug 15 Oct 1 South: Sept 5 - Oct 15

- North: Sept 5 Oct 30 Central: Sept 15 - Nov 15 South: Sept 25 - Nov 15
- Coastal: Sept 1 Oct 1 Piedmont: Aug 15 - Sept 20 Mountain Valleys: Aug 5 - Sept 15
- North: Sept 15 Nov 15 Central: Sept 25 - Nov 15 South: Oct 5 - Nov 30
- July 15 Sept 1

Aug 20 - Sept 30

July 1 - Aug 15

June 15 - July 15

July 15 - Aug 31

July 1 - Aug 15

- Aug 1 Sept 30 July 1 - Aug 15
- 20 June 15 - Aug 1
- July 15 Aug 31
- July 1 Aug 15

*Do not plant PowerPlant, Conceal or Sunn Hemp until soil temperatures

reach a constant 65 degrees F.

PLANTING DATES FOR **POWERPLANT. CONCEAL AND** TURKEY SELECT



April 1 - May 31

June 20 - July 31*



Highly Effective Rules for Growing Deer Food

By Scott Bestul

Photos by the Author

hen my 15-year-old neighbor pulled the trigger on a buck we called "The Flyer" this past fall, it represented the highlight of Tanner's young hunting career and provided satisfying proof that our food plot strategy worked.

Tanner's dad, Alan, and I have worked together for years to improve deer hunting in our area, which consists of small timber blocks and farm fields surrounded by public hunting ground. We've altered hunting and management strategies, and have worked hard to get better at locating, planting and managing food plots as part of that plan. The Flyer Buck, a main-frame 8-pointer with junk sprouting everywhere from the fourth set of antlers he'd grown, was tangible proof that at least some of those efforts were paying off. Naturally, food plots were an integral cog in that wheel, and I'm convinced that lessons we've learned during the process were critical in Tanner's success. Here are four of those lessons.

Don't Hunt Your Food Plots

OK, this is an exaggeration, but only a slight one. I've told more people than I care to count that I have a love-hate relationship with food plots. I love them because I know how dramatically they can benefit deer and attract them to a property. I hate food plots because hunters misuse them so badly, viewing them as their only go-to spot(s) to kill deer. Unfortunately, the more people visit plots, the less deer do, at least during the times of day when we want deer to use them the most.

It's an understandable mistake. Our food plots are labors of love, and evidence that deer share our affection is usually obvious. Exclusion cages prove that whitetails are hammering our plants, and trail cams often yield photos of plump does and whopper bucks. The nat-



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ural inclination is to hunt the plot, and often we're successful when we do. The problem comes with the repetitive visits that focus all or at least most — of our hunting efforts on the place we want whitetails to feel comfortable.

Deer are a prey species, programmed to be on high alert when they're most vulnerable. Watch a mature whitetail of either sex as it enters a food plot — or water source — and it spends long minutes staring and sniffing and listening, making sure the proverbial coast is clear before it eats or drinks. And, of course, anyone who's watched a feeding whitetail knows the process is continually interrupted by pauses to re-check for danger. If we could get in the whitetail brain, I think the internal conversation would go something like, "OK, really hungry now, but holy cow, I just hate putting my head down right here in a spot where the nearest escape cover is so far off."

Now introduce the scent, sight or sound of a hunter — or worse, the crack of a rifle and a nearby companion hitting the dirt — into this scenario. Suddenly, we've turned a place where a whitetail already feels vulnerable into a panic room. And although you'll never convince me that mature deer think like humans do, I believe they're wary beyond belief and experts at repeating behaviors that are successful for them. In other words, if an old deer of either sex starts to view food plots as a danger zone, the chances of them visiting in daylight plummet.

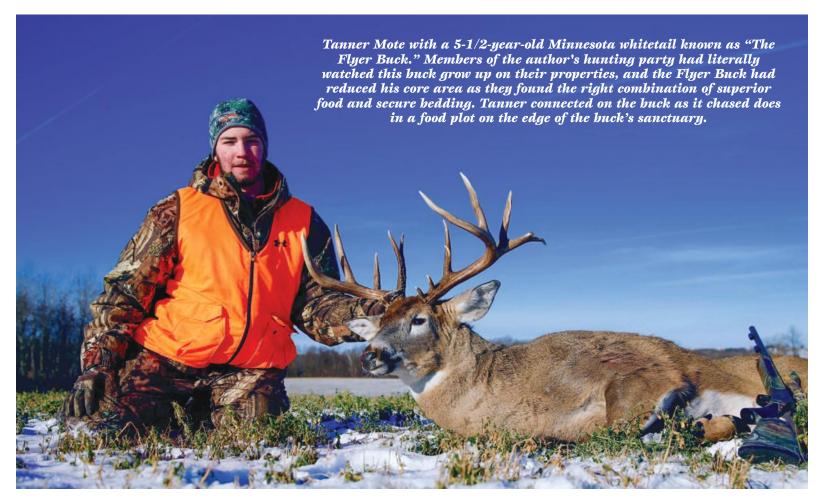
The antidote is simple but challenging. Spread out your food plot hunting effort. My hunting buddies and I plant dozens each year, but some only get hunted once or twice a season and only during perfect conditions. Second, have a bullet-proof entry and exit strategy that lets you get to and leave your stand or blind and keep deer disturbance to a minimum. Finally — and this is the toughest — force yourself to hunt transition areas leading to and from food plots as much as possible. Although it's tempting to just sit over the food, you'll keep whitetails returning to your brassicas, oats and clover if you treat them more like sanctuaries rather than killing fields.

Do Your Homework

As a former teacher, I saw students who stunk at taking tests. None of them were dumb. They just didn't prepare. Armed with the proper information and solid study techniques, any one of them could pass an exam, and most did well. If a child did his homework and I wrote the test designed to test him on that work, success was expected.

Well, a food plot is a test, and the way we study for it is through prep work. As I've said in this space before, most of my best hunting buddies and fellow land managers are also farmers; people who grow crops for a living. And although it's tempting to think their success at making green things pop from the soil and thrive is genetic, the truth is no one does his homework better than a successful farmer. He recognizes the importance of soil testing and preparation; knows which seed types thrive in his area; constantly studies up on insects, diseases and other hurdles to success; and understands the importance of nurturing plants when they're growing.

Hunters, conversely — and I've been guilty of this — think we can short-circuit this process. We look at black dirt and think, "What can't grow there?" Or we get lazy, short on time or any of a dozen poor ex-



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from The Whitetail Institute

Like the protein found in Whitetail Institute food plot products, minerals and vitamins are also an essential part of the growth matrix of any deer, especially a buck. Hardened antlers are comprised largely of mineral, approximately 55 percent, and most soils in North America lack one or more of the minerals vital to antler development. When you consider that a buck re-grows antlers each year, you can understand why they require such high levels of minerals in their diet.

If you want your deer to thrive and help them reach more of their genetic potential, then mineral and vitamin supplementation is vital. 30-06 mineral and vitamin supplements are extremely attractive to deer. They are also designed by nutrition experts and are professionally formulated to provide the best nutrition possible for your deer. 30-06 is an extremely attractive and nutritional product, not a glorified salt product.

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cuses for not taking a soil test, liming, fertilizing or controlling our weeds. Don't do that. If you're going to take the test, invest the time in homework ahead of time.

Prepare for Failure

Of my many faults, this is perhaps the most obvious: I can be a procrastinator. In fact, I'm famous in my family for shelving projects that need attention. My father, a let's-get-to-it kinda guy who is maddeningly efficient, likes to tease me about this with his patented line: "Well, has that problem fixed itself while you've had it on your to-do list?" Like most smart men who speak the truth, Dad has hurt my feelings from time to time, but ultimately his prodding has made me more efficient and successful. Don't you hate it when people like that are usually right?

This little glimpse into my psyche might seem to have nothing to do with food plotting until you consider this: Some plots, despite our best efforts, simply tank. Rains don't come, or they come too hard. Weeds take over. Deer wipe out a plot before it gets a chance to mature. For a procrastinator, those hurdles can be the kiss of death. So, with my dad's advice serving as a mantra, I've learned to jump on problems as quickly as possible, and I'm surprised how often they arise.

Any time I plant a spring plot, I check on its progress within two weeks. This gives me an early peek at the first stages of germination — assuming it occurred — and early growth. It also gives me a chance to check on any weed competition and identify possible fixes. Handling weeds in the early stages of growth is far easier than letting them get a major head start, especially in a clover or other perennial plot. Rain —a lack or overabundance of it — is another potential food plot crippler. I've had plots that germinated beautifully but then fried in an ensuing drought, and I've had plots that were so blown out by torrential rain I had to start again.

The point is, catching these problems before they become monsters is crucial. And here's the really good news: If you don't know how to

handle a food plot problem on your own, consult an expert by calling someone you know or contacting the customer service consultants at the Whitetail Institute at 800-688-3030. You may solve an impending disaster, and my dad would be proud of you for tackling a problem in a timely manner.

Drop the Crutch

Have I mentioned I have a love-hate relationship with food plots? Well I do, and here's another reason why: We like to hang our entire management plans around feeding deer. No one is more enthusiastic about filling a whitetail's belly than me, but here's the thing: Deer only feed when they feel safe. And the only way they feel safe is when there's escape cover nearby. Which makes this perhaps the most important lesson in my years of food plotting: If you want to make your food plots shine, improve the habitat around them.

If you doubt this, bear with me as I describe a pair of nearly identical food plots. Both have been soil-tested with scientific precision. Each has enjoyed the exact applications of lime and fertilizer recommended by those tests. The plots have been planted within the ideal window of time prescribed for the seed, and timely rains have fallen just when growing plants needed it most. To top it off, weeds and insects avoided each plot, allowing the crop to grow lush, attractive and highly palatable.

But I said the plots were almost identical, and the difference between them is critical. One of the perfect plots grows near a stand of mature timber that has no mast species that might attract deer. The trees grow straight, perfect and so tall that no sunlight penetrates the forest floor — the same sunlight that would let brush or browse species grow. To make matters worse, the nearest bedding area is more than a mile away.

The other plot, however, is lined with dense brush and young trees that whitetails love to browse. Bedding ridges and other security cover are within an easy walk for deer, and even mature bucks feel safe grabbing a bite from the food plot at midday, largely because the plots are hunted sparingly. Even if a buck smells, sees or hears a human, safety is just a leap or two away.

Of course, whitetails prefer the latter of those plots, and the chance of a hunter tagging a deer soar at the second. And of course, that's because the food didn't operate in a vacuum, functioning as the sole attraction in marginal, if not poor, whitetail habitat. Instead, it was planted in an area where deer used it frequently because they felt safe and had other critical needs met by the surrounding cover.

I've spent years learning from people a lot smarter than me on the best practices for food plotting. But I believe I really didn't get good at things until I listened to their advice to situate plots where deer already feel safe and comfortable. Want your food plots to shine? Make them an integral part of a land-management plan that emphasizes whitetail habitat in all its phases.

Conclusion

Of course, these are only four of the lessons I've gleaned from my geek-like devotion to growing deer food. Unfortunately, I was assigned to write an article, not a book, and I can hear my editors yelling at me to finish. Perhaps next issue, I can return with more, but I believe and hope this quartet of personal rules will benefit your efforts and planning going forward.



How to Create Successful Big-Woods Food Plots

By Jeremy Flinn

Photos by the Author

clearly remember walking to the old log landing, which I had not visited since planting a couple of weeks before. Large tulip poplars and sporadic oaks towered above me as broken beams of light shined through until we neared the landing. I've never experienced an oasis vision, but I imagine it would resemble something like I saw there.

Take advantage of natural openings such as gas lines for planting in the big woods.

In the middle of the large timber, miles from crop fields, sat a lush one-acre Fusion plot. It wasn't an oasis but a savior to my deer season. That fall, acorns were limited, and deer were spread out across thousands of acres. The one consistent factor was that food plot. In late October, I arrowed a mature mountain 8-pointer as he worked a scrape between one of his bedding areas and that plot. Without Whitetail Institute products, the odds of patterning him and hanging a stand for that hunt would have been tough.

I would be remiss if I didn't mention the first thing I did on that plot was perform a soil test. Whatever and wherever you decide to plant a food plot, take the time to do a soil test.

When I saw the success of that first log-landing plot, the wheels began to turn. Could I implement a year-round food plot strategy in the big woods? I soon learned I could.

Many big-woods hunters don't look beyond small kill plots. Woods offer a few natural openings you can plant. However, there are some great opportunities to get creative in a large wooded area, and not just with a simple fall annual (though that might be where you start). The layout of your property and access with equipment may be limiting factors in creating a big-woods food plot paradise. However, starting with a rake and chainsaw can get you going.

Bare ground and some sunlight are all you need to get started planting big-woods food plots. In fact, log landings or even ATV/UTV trails are some of the best places to start. Though not completely open, those are the first places I seek and plant. It takes a lot of work to walk into the middle of the woods and clear a half-acre without bigger equipment. It takes little work to clean up the edges and harrow-drag or disc existing opportunities. On trails, plantings in clover can also minimize erosion. That doesn't mean you can't drive on those anymore. Use them as you typically would. Instead of dirt between the tire ruts, it will be clover. Imperial Whitetail Clover performs well in such partially shady areas.

As you start to exhaust current openings, look to create openings to establish food plots. The nice part about newly established big-woods food plots is you can dictate precisely where you want to put them, with only the topography as a limiting factor. If you want to clear a halfacre plot next to a primary bedding area, go for it. If you have some heavy equipment or are hiring someone to help and want to clear a 3-acre destination food plot in the center of the tract, do it. Obviously, the soil quality will not be on par with farmland soil, but you aren't establishing a cash crop. You just want to grow a healthy food plot to attract deer and provide nutrition.

There is still a strategy you must implement. If you create a half-acre plot in the center of your property using a warm season annual like soybeans, you will likely see

that plot disappear fast. The attractiveness of a summer annual plot will bring deer from long distances, and they can eat it to the ground quickly. A good rule of thumb is to focus on fall annuals and perennials for plots smaller than an acre. An annual warm season, spring/summer food plot should be at least an acre, if not two or three acres. PowerPlant is ideal for these type plots because of its ability to better withstand heavy browsing. With big woods food plots there are not acres of crop fields to help balance the feeding pressure. In fall, a strong acorn crop will help ease pressure on the plots, but as the acorn supply diminishes, feeding pressure at food plots increases.

I like establishing annual fall plots such as Pure Attraction, White-tail Oats Plus or Secret Spot in small hunting plots. My perennial plots usually consist of Fusion, Imperial Whitetail Clover or Vision, which I can rely on for longer durations. If I have a large destination plot, I will use PowerPlant for the late spring and summer. Then, I'll often disc the plot up during fall and do two annuals that peak at different times (such as Whitetail Oats Plus and Winter-Greens) separated by some strips of Conceal to allow deer to feel more comfortable in daylight at such a large field.

There will be some limitations. For example, although I love planting Alfa-Rack Plus, it requires a soil that's somewhat more high-end than some of the counterpart seed blends. Potentially, after a few years of planting and some pH and nutrient work, you can establish blends such as that. But something is better than nothing, and out of the gate, it's often critical to just establish a food plot. If getting equipment to the site is difficult or if you're in a hurry, No-Plow will create some killer hunting setups. Start small and grow your food plot plan appropriately.







Power lines often provide a great opportunity in the big woods to plant larger destination plots.

Rarely will you create all those openings in a year. As you lay out a strategy, consider how each plot will benefit you and the herd. Take on a couple of smaller projects before trying to clear and plant a large isolated destination plot. Ultimately, be smart about how you clear things out. Timber has a value, and although it's always changing, it's important to keep an eye on timber prices, as a cutting might cover your costs for improvements.

Additionally, understand the effect you will have on your property during those times. You likely don't want heavy machinery and disturbance the month before the season. If possible, try to schedule work at the close of the season, before spring rains. That might let you get your first round of perennials in that spring, and by the time hunting season comes around, that Whitetail Institute food plot will be lush.

Tackling the big woods can be intimidating. Ensure proper safety precautions as you begin to clear new areas and operate equipment. Approach the process with strategic planning and understand that an evolving multiyear implementation can create attractive plots and change the dynamic of a property's deer production and hunting success. Just because you're stuck with big woods doesn't mean it can't produce big deer.

The author harvested this mature buck as it left a bedding area and hit a scrape headed toward a small Whitetail Institute plot planted on a log landing.





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TOTAL Including shipping and handling \$ (Add 7% Sales Tax)

Please add \$19.00 for shipping and handling for each 40 lbs. ordered. (Canadian residents call for ship-



IMPERIAL NO-PLOW® YOU SAVE \$40.00



Suggested Retail: \$149.96 (50 lbs. - 3-Acre Planting)

Price with coupon: \$109.96

Please send 50 lb. quantities of Imperial No-Plow. (2-25 lb. bags)

TOTAL Including shipping and handling \$_ (Add 7% Sales Tax)

se add \$19.00 for shipping and handling for each 50 lbs. ordered. (Canadian residents call for ship-



PLUS® YOU SAVE \$65.00



Suggested Retail: \$289.96 (33 lbs. - 2.5 Acre Planting) Price with coupon: \$224.96

Please send _____ 33 lb. quantities of Imperial Alfa-Rack PLUS. (2–16.5 lb. bags)

TOTAL Including shipping and handling \$_ (Add 7% Sales Tax)

Please add \$19.00 for shipping and handling for each 33 lbs. ordered. (Canadian residents call for shipping charges.) Please enclose with shipping and payment information.



IMPERIAL <mark>30-06® THRIVE™</mark> YOU SAVE \$25.00



Suggested Retail: \$90.97 (60 lbs.)

Coupon Price: \$65.97

Please send _____60 lb. quantities of Thrive. (3-20 lb. bags)

TOTAL Including shipping and handling \$_ (Add 7% Sales Tax)



ARREST MAX® HERBICIDE YOU SAVE \$10.00 to \$50.00

Suggested Retail: \$49.95 (1 Pint - 1 Acre); \$189.99 (1/2 Gal. - 4 Acres)

Price with coupon: 1 Pint - \$39.95; 1/2 Gal. - \$138.96

Please send pint(s) of ARREST MAX Herbicide.

Please send _____ 1/2 gallon(s) of ARREST MAX Herbicide. Call for larger quantities.

> TOTAL \$ (Add 7% Sales Tax)



IMPERIAL 30-06®BLOCK YOU SAVE Up To \$13.00



Suggested Retail: \$59.96 and \$29.95

Coupon Price: \$46.96 or \$24.95

Please send ____

2-Pak Blocks @ \$46.96

Please send ____ □ 1 Block @ \$24.95

TOTAL Including shipping and handling \$_ (Add 7% Sales Tax)

se add \$13.00 for shipping and handling for EACH Block or \$19.00 for EACH Double Pack. (Canadian residents



SLAY®HERBICIDE YOU SAVE \$10.00 to \$21.00

Suggested Retail: \$59.95 (4 oz. - 1 Acre); \$159.95 (1 Pint - 4 Acres)

Price with coupon: 4 oz. - \$49.98; 1 Pint - \$138.98

Please send _____ 4 oz. Package(s) of SLAY Herbicide.

Please send Pint(s) of SLAY Herbicide.

Call for larger quantities.

TOTAL \$ (Add 7% Sales Tax)



$m{06}^{\otimes}$ Mineral/Vitamin Supplements YOU SAVE \$25.00



Suggested Retail: \$90.97 and \$99.97 (60 lbs.)

Coupon Price: \$65.97 or \$74.97

Please send _____60 lb. quantities of 30-06 (3–20 lb. bags)

☐ Original 30-06 @ \$65.97 ☐ 30-06 Plus Protein @ \$74.97

TOTAL Including shipping and handling \$ (Add 7% Sales Tax)



RAZE® Flavored Deer Attractant YOU SAVE \$40-\$65



Suggested Retail: \$119.99— 6-Pak, \$69.96 — 3-Pak

Coupon Price: \$54.96 or \$29.97 Please send ____

6-Pak KRAZE @ \$54.96

☐ 3-Pak KRAZE @ \$29.97 Please send

_ (Add 7% Sales Tax)

ing. (Canadian residents call for shipping charges.)



* Important: Shipping & Payment Information

* Please Include Daytime Phone Number For UPS Shipments and Any Questions We May Have About Your Order.

Shipping Address: (No P.O. Box)				
City:		State:	Zip:	
Daytime Phone:	Fmail:			

Payment Method:

☐ Check or Money Order Enclosed

Charge to my: ☐ Mastercard ☐ Visa ☐ Discover

Credit Card#: Exp. Date: ____ Sec. Code Signature:_



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Mail To: Whitetail Institute of North America 239 Whitetail Trail • Pintlala, AL 36043 Or Call Toll Free: 1-800-688-3030 • Fax Orders To: (334) 286-9723





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Caps: \$9.95

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Hunter Orange Logo Cap



Camo w/Tan Mesh Logo Cap



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Camo Logo Cap



Black Logo Cap

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All our Whitetail Institute tees are made from 100% preshrunk cotton, and feature screen-printed front and back designs.

Short Sleeve Tees: S-XL: \$14.95, 2X: \$15.95, 3X: \$16.95



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WHITETAIL INSTITUTE OF NORTH AMERICA 239 Whitetail Trail, Pintlala, AL 36043

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Available color: White

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When Imperial Whitetail Clover was introduced in 1988, it marked the first in the field of food plot management and deer nutrition. This new product gave hunters the ability to attract deer, hold them on their property and supply the herd with optimal nutrition throughout the year. In fact, deer hunters today are five times more likely to kill a buck that qualifies for the record books than before the introduction of Imperial Whitetail Clover.

The Whitetail Institute's research and development staff have continuously upgraded and improved the original blend. Proprietary clovers developed by Whitetail Institute agronomists have been incorporated resulting in even better attraction and extremely high protein levels, up to 35%. These clovers are available only in Whitetail Institute products, Imperial Whitetail Clover was the first in the field and has become the gold standard by which all other food plot products are judged.

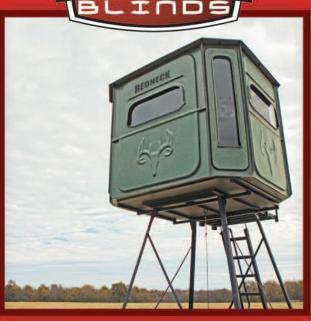
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