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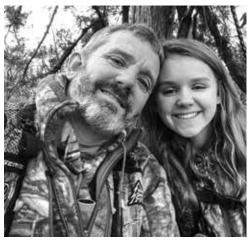


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#### 14 MY GIRL: A FATHER-DAUGHTER JOURNEY FROM CRAYONS TO CROSSBOWS

This wild, glorious ride has produced many unforgettable moments and some dandy bucks. By Zeke Pipher

#### DEPARTMENTS

A MESSAGE FROM THE GM

6 SCIENTIFICALLY SPEAKING

**10** ADVANCED FOOD PLOTTING

**66** MY TROPHY WHITETAILS

71 | FIRST DEER

74 BACK-40 NOTEBOOK



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Here's a new true rotational crop for spring and summer.

By Jon Cooner

FOOD PLOTTING

#### FROST SEEDING: WHY AND HOW

Get a jump on the growing season by seeding when the snow flies. It can pump new life into old plots.

By Scott Bestul

SUPPLEMENTS

# A MINERAL SITE

How do you pick the best spot for a mineral site and decide how many sites to create? Experience has given the author tremendous insights into the equation.

By Matt Harper

# KANSAS

This family took their food plots to the next level, and it resulted in a whitetail dream season.

By Gordy Krahn

# **LAST-OPTION SAVES:**

Sometimes, you must deep-six that failed food plot and start again. But that's OK. Here's what you should do.

By Josh Honeycutt

# **36** 6 KILLER LOCATIONS TO HANG TRAIL CAMERAS FOR

Most deer hunters use trail cameras, but have you deployed them for turkey hunting? If not, you might be missing the action. By Darron McDougal

FOOD PLOTTING

## IMPERIAL WHITETAIL POWERPLANT: SEASONAI

This annual blend provides deer with many obvious - and some lesser-known advantages. By Jon Cooner

# 46 PERENNIAL FOOD PLOT MAINTENANCE: ABOUT MORE

Many food plotters misunderstand why weed control in perennial stands is so important. ■By Jon Cooner



Whitetail Institute's in-house agronomist and weed scientist answers common queries most land managers face. By Josh Honeycutt

# MIMPERIAL WHITETAIL CONCEAL: STAY HIDDEN,

This spring annual solves concealment problems and helps deer feel comfortable on your land. By Jon Cooner

## 56 ADJUVANTS: WHAT ARE THEY, AND WHY

Choosing the correct adjuvant can be confusing, but they greatly help with post-emergence weed control.

By Dr. Joyce Tredaway

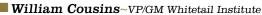
SOIL PREP

# 60 WHITETAIL INSTITUTE SOIL TESTING: NOW QUICKER

Get quick, specific recommendations to optimize your food plots and save money.

By Jon Cooner

Fresh dirt requires lots of planning, work and patience. Whitetail Institute can help. By Michael Veine







he media seems to emphasize bad news these days and skim over things that are positive and uplifting. We find ourselves feeling like the world is falling apart. But don't let that overshadow the good news Mother Nature continues to offer.

It seems the media is consumed with focusing on what's going wrong in our lives, from shipping bottlenecks, to shortages of everything from appliances and computer chips for new cars. It's difficult to find reliable labor, which affects our restaurants and small businesses, and our hospitals are understaffed and overworked. For a businessman, it's unprecedented, and it can be hard to keep

from thinking about worrisome news and negative outcomes.

Even though we are surrounded by a constant source of troubling reports, I still see so many reasons to be thankful, and Mother Nature provides many of those reasons. This spring, I noticed the largest turkey poult hatch I can remember, followed by a healthy generation of fawns. Even the fish continue to bite.

It occurs to me that this is one benefit we as outdoorsmen and wildlife stewards enjoy that's lost on folks who live entirely in artificial environments. The constancy of the abundance of nature sustains us even in times such as these. Be sure to notice these amazing things

when you next visit your hunting property. Unlike our synthetic lives, the natural world is still full of abundance, not shortage. If you get a chance to share your love of nature with someone who has yet to experience the richness it provides, you might want to use that as a means to add meaning and purpose in this reportedly dim situation that surrounds us. Introduce the great outdoors to someone who hasn't experienced the fullness nature can provide, and together we can help spread some sunshine for brighter days ahead.

— William





by W. Carroll Johnson III, PhD. - Agronomist and Weed Scientist

#### NITROGEN:

# AN ESSENTIAL ELEMENT FOR PLANT GROWTH

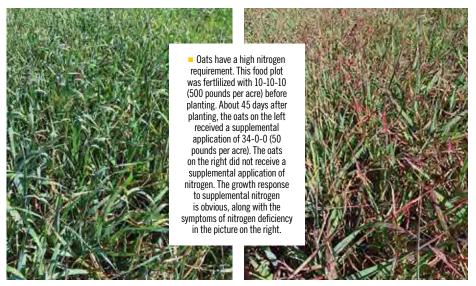
Food plotters should understand the qualities of major nitrogen fertilizer sources and use them correctly.

had to earn several required merit badges to attain the rank of Eagle Scout. One was the nature merit badge. The assigned counselor was an esteemed horticulturalist from Auburn University; a native-born German who had a heart of gold and a Germanic brogue that unintentionally intimidated a teenager.

That was not an easy merit badge. I had to work for it under his terms. One of the foundational topics we discussed was the chemical composition of the atmosphere — the air we breathe. What is the most common element in the atmosphere? The answer is nitrogen, at 78 percent. Forty-eight years later, I still remember the question and, more important, the answer. Hold that thought.

Nitrogen fertilizers are a cornerstone in the production of many forage crops in food plots, including sorghum, brassica forages, cereal grains and sugar beets. In contrast with nitrogen-fixing legumes, such as clover and alfalfa, these crops need nitrogen fertilizer. Entire soil science careers have been spent studying nitrogen fertilizer sources, behavior in soils and improving the efficiency of nitrogen fertilizer use.

Plants use nitrogen to make amino acids, the building blocks for proteins. Those proteins are essential for the structural components of plants. Nitrogen is also a component in chlorophyll, the pigment that captures light and energizes the processes associated with photosynthesis. Plants deficient in nitrogen are stunted and have yellowish leaves (called chlorosis). Plants with adequate nitrogen have vigorous growth and deep green color. Nitrogen alone does not optimize plant



growth, as there must be a correct balance with other plant nutrients. Forages heavily fertilized with nitrogen fertilizer, although deficient in other essential plant nutrients, might look healthy but might not have ideal flavor or nutrition. Nitrogen is only one piece of the plant nutrition matrix.

#### **NITROGEN BEHAVIOR IN SOILS**

Nitrogen readily changes chemical form in the soil. The final nitrogen form for plant uptake is nitrate. Nitrates move downward in the soil with percolating water (leaching). In extreme cases, nitrate leaching can create large-scale environmental hazards to streams, rivers and lakes. This is a compelling reason to use nitrogen fertilizers wisely and according to the best management practices for each crop.

#### **NITROGEN FERTILIZERS**

Nitrogen has three primary forms in fertilizers commonly used in food plots: ammonium, nitrate and urea. Which is the best nitrogen fertilizer source for food plots? All will work, but that question in a food plot management context is best answered by availability. When you consider real-world factors, the best nitrogen fertilizer source for food plots is the one readily available when needed. It's important to understand the qualities of major nitrogen fertilizer sources and use them correctly.

#### AMMONIUM FERTILIZERS

Ammonium sources of nitrogen are completely synthesized. Common ammonium-based fertilizers include ammonium nitrate, ammonium sulfate, di-ammonium phosphate and anhydrous ammonia. Ammonium-based nitrogen fertilizers are often combined with other nitrogen sources in bagged fertilizer. Two ammonium-based nitrogen fertilizers present unique hazards. For many decades, ammonium nitrate was a commonly used nitrogen fertilizer. However, ammonium nitrate is an explosive and presents unique storage challenges at dealers. As a result, ammonium nitrate is heavily regulated



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#### SCIENTIFICALLY SPEAKING

and, for practical purposes, unavailable. Anhydrous ammonia is a gas and requires specialized equipment to apply. It's not feasible for food plot use.

#### NITRATE FERTILIZERS

Nitrate fertilizers can be naturally occurring or synthesized. Naturally occurring nitrates are mined as sodium nitrate in arid regions of Chile, a mainstay source of supplemental nitrogen decades ago, and a commodity of strategic importance in the first part of the 20th century. Currently, most nitrate fertilizers are synthesized. Common synthesized nitrate fertilizers include calcium nitrate, potassium nitrate and ammonium nitrate. In commercial agriculture, nitrate fertilizers are premium fertilizer products used on high-value crops that have very specific nutritional needs.

#### **UREA FERTILIZER**

Urea is a common nitrogen fertilizer that's synthesized from a chemical reaction of ammonia with carbon dioxide. When formulated as dry fertilizer, urea fertilizer contains 46 percent nitrogen (46-0-0), which is the highest concentration of nitrogen available in dry fertilizer. Urea is the least costly form of nitrogen fertilizer because of its ease of manufacture. Additionally, concentrated urea offers many logistical advantages when managing food plots in remote locations, including fewer bags of fertilizer to transport and apply to food plots. Finally, fertilizers containing urea are readily available at most dealers and retail outlets.

Urea is a versatile fertilizer and commonly blended with other nitrogen sources. An example is 34-0-0, which contains 34 percent nitrogen (24.5 percent from urea and 9.5 percent from ammonium sulfate). Some premium urea fertilizers are coated with sulfur or a polymer for controlled release, which improves efficiency. Urea can be formulated to be mixed with water and applied as a foliar spray to provide small amounts of nitrogen to improve nitrogen utilization efficiency.

Urea fertilizer has some important quirks that require additional discussion. A natural process in the soil converts urea to ammonia (a volatile gas), then to ammonium and finally to nitrate for plant uptake through the roots. Urease, a naturally occurring enzyme in the soil, converts urea to ammonia. This step in the chemical transformation is the basis for two disadvantages of urea-based nitrogen fertilizers. Urea changes to volatile ammonia, and some of the nitrogen is lost to the atmosphere if the fertilizer is left on the soil surface and not mixed with the soil. Nitrogen loss before being fully used by crops reduces efficiency. Similarly, the high concentration of ammonia gas at the soil surface is toxic to seedling crops. Both issues are exasperated during hot summer weather, which speeds the chemical conversion from urea to ammonia. Further, applying the full amount of concentrated urea fertilizer in one application increases the chances for significant nitrogen loss and ammonia toxicity to seedlings by simply increasing in the volume of ammonia being generated.

Some commercially available fertilizer additives temporarily hinder the soil-inhabiting urease enzyme that converts urea to volatile ammonia. Urease inhibitors are additives blended with bulk fertilizer that slow the enzymatic conversion to ammonia. With food plots, managing nitrogen loss and ammonia toxicity does not necessarily require the additional expense of using a urease inhibitor. Nitrogen loss from urea can be managed by simply altering food plot management practices, such as using ammonium or nitrate fertilizers, applying urea before planting and lightly mixing (harrowing) it with the soil, and splitting the urea rate such that half is applied before planting and half 30 to 45 days after planting.

In 2022, expect fertilizer to be costly — especially nitrogen fertilizer. Do not let the high cost of nitrogen fertilizer discourage you from applying recommended amounts of nitrogen. Otherwise, forage growth will be subpar and forage quality (nutrition and flavor) will be compromised. Double down by following the nitrogen recommendations on the Whitetail Institute soil test report for the products you're planting and calibrating your appli-

cation equipment to apply the correct fertilizer rate. In the case of urea, take appropriate measures to prevent nitrogen loss.

#### MORE ON NITROGEN

Going back to the beginning of this article, think about the lesson I learned: 78 percent of the atmosphere is nitrogen gas. Nitrogen in the atmosphere is very stable, almost inert, and not in a form for use by plants. One of the breakthroughs in modern agricultural science and chemical engineering was the Haber-Bosch process, by which atmospheric nitrogen is converted to ammonia, a building block for all synthesized nitrogen fertilizers. The Haber-Bosch process revolutionized modern agriculture. However, the process is also used to manufacture base components of munitions, which helped shape world political history during and immediately after World War I.

I admit that I can be somewhat of a geek, particularly regarding science and world history. The book "The Alchemy of Air" by Thomas Hagar discusses the science of the Haber-Bosch process and how that became a major factor in international politics in the early 20th century. This book is not over-the-top science, but contains just enough to illustrate the immense challenges scientists faced to capture atmospheric nitrogen and convert it to a useful consumer product such as nitrogen fertilizer. The information will not improve your food plots but will help you understand how a seemingly obscure discovery shaped our world.

#### **EPILOGUE**

It's worth noting that although this article focuses on nitrogen as a plant nutrient and nitrogen fertilizers, organic forms of nitrogen are components of soil organic matter. Enhancing soil organic matter is a goal of long-term efforts to improve soil health. That aspect of nitrogen management is a topic of another article.





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#### ADVANCED FOOD PLOTTING

State-of-the-art tips and techniques for high-level land managers

by Joyce Allison Tredaway - Agronomist and Weed Scientist

# **EARLY POST-EMERGENCE WEED CONTROL: CONTROLLING BROADLEAF WEEDS AND GRASSES**

Modern herbicides are extremely effective, but it pays to remember that the early bird gets the weed.

hen I was growing up, my daddy wouldn't let me sleep in on Saturdays or summer mornings. He would come into my room and sing Irving Berlin's "Oh, How I Hate to Get Up in the Morning." If you're not familiar with that song, a soldier wants to murder the bugler because he hates to get up in the morning. If he murders the bugler, he can spend the rest of his life in bed. My father would say I was burnin' daylight, sleeping my life away, and that the early bird gets the worm. As I have gotten

older, I see that he was correct and that this principle applies to many aspects in life. From saving for retirement early in your career to being the first out in the morning for a deer hunt, there are many advantages to being early. The same holds true for early post-emergence weed control.

As you prepare for spring, weed control is one of the most important considerations you shouldn't

overlook. Weeds can be deceiving. Your food plot might look immaculate, but a month later, it's covered in weeds. That's because weeds were designed to outcompete crops. The seeds can lie dormant for years, and a cold event, storm (tornado or hurricane) or an unusually warm winter can make them emerge. I can't count the times I've received a call from someone who has been on a property for 30 to 40 years and has never seen a weed, but weeds have suddenly taken over their land.

Food plotters have some tools to defeat many annual broadleaf weeds and grasses. Knowing how to use those tools is critical to success. Broadleaf weeds must be treated differently than grasses. That's the first step in controlling them.

We often think of post-emergence applications when we see large weeds. That mindset has increased dramatically with nonselective herbicides, such as glyphosate. However, I want to change that narrative to spraying early post-emergence herbicides when weeds are extremely small.



#### **BROADLEAF WEED CONTROL**

Slay is a very effective broadleaf herbicide that provides residual or soil activity as well as foliar activity. The key to using Slay is applying it at the proper time. Emerged broadleaf weeds must

be 4 inches or smaller when Slay is applied. That small window of application is critical to success. Slay is an excellent herbicide, but it was developed for early post-emergence herbicide applications. It was not designed to spray large weeds. You also must wait until your clover or alfalfa is in the first trifoliate stage before spraying Slay. That means you're watching for a window of opportunity for small weeds, and that window must also include the correct clover height and growth.

Because Slay has soil residual activity, it will prevent broadleaf weeds and some grasses from emerging. That's a strength many don't realize. It controls small weeds that have emerged and continues to work with its pre-emergence properties. That provides extended weed control for longer in the season. A crop oil such as Sure-Fire should always be included with Slay applications.

Slay has activity on many annual broadleaf weeds, such as common lambsquarters, common ragweed, pigweeds, smartweeds

## HERBICIDE

- Selective broadleaf herbicide.
- Four ounces treats 1 acre, one pint treats 4 acres.
- Slay is field-tested and proven effective for controlling broadleaf weeds in clover or alfalfa fields. Slay can be easily applied with a four-wheeler or tractor sprayer. Using the right herbicide can eliminate the need for replanting as frequently and ensure that your food plots have maximum longevity.



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LEFT: Here's the size of common lambsquarters, when Slav should be applied early post-emergence for effective control.

RIGHT: These grass-looking plants are sedges, and Arrest Max does not control them. This is purple nutsedge.



and brassicas. Because it's highly active on brassicas, it should not be used in any mix that contains brassicas.

#### **GRASS WEED CONTROL**

Grasses can be easily controlled with Arrest Max if they are true grasses and the herbicide is properly applied. Questions Whitetail Institute consultants receive about a lack of grass control typically involve situations when a weed that's sprayed is not a grass but actually a sedge or rush, or the grass is sprayed late in the season, when it is too large.

Sedges and rushes are grass-looking plants that are not in the grass family. Some people call nutsedges "nutgrasses," which confuses the fact that they are not botanically classified as grasses. Grasses are in the Poaceae family, for which Arrest Max is highly effective. Sedges are in the Cyperaceae family, and rushes are in the Juncaceae family.

Sedges are triangular in cross-section, rushes are evergreen (flat or rounded) and grasses are jointed, meaning they have nodes where the leaves come from. This is the easiest way to distinguish those plants from one another. This is important because Arrest Max and any other grass-control herbicide have no activity on sedges and rushes.

Annual grasses can easily be controlled when they are small (6 to 8 inches tall) with Arrest Max and a crop oil concentrate or methylated seed oil, such as SureFire. Arrest Max has foliar activity, and the herbicide will translocate throughout the plant. Symptoms are slow to appear and normally take about three weeks for pur-

> pling, followed by chlorosis or yellowing to occur. An easy way to see if the herbicide has killed the

growing point is to pull the top leaf from the grass and look at the growing point. If it has a dark purple, brown, or black circle around it, the growing point is dead, and the rest of the plant will soon die. You can check this at about three weeks after application.

Perennial grasses such as rhizome johnsongrass and quackgrass will take two 16-fluid-

ounce-per-acre applications or one 32-fluid-ounce-per-acre application. because of the large underground stem called a rhizome, which must be killed for the entire plant to die. If the perennial grass has been established, it often takes a few years of the higher dose to kill the grass.

Timely early post-emergence applications of Slay and Arrest Max can greatly increase your chances of a successful food plot. The type and size of the weed will determine which herbicide to use and the best time of application. However, with most herbicide applications, remember the phrase that I was taught: "The early bird gets the worm." Or to rephrase, "The early applicator gets the weed."



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One pint treats 1 acre.

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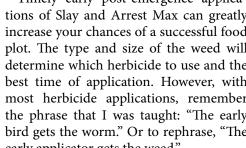
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sprayer and has proven effective







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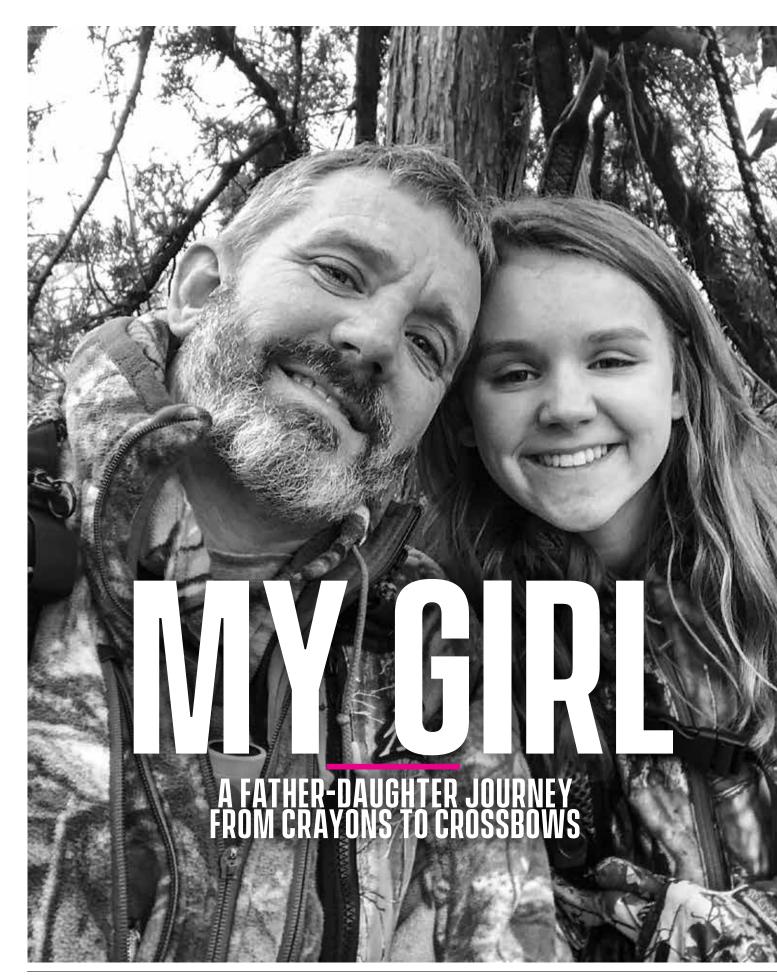
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#### This wild, glorious ride has produced many unforgettable moments and some dandy bucks.

■ Text and photos by Zeke Pipher

would be the first time my tenderhearted 5-year-old daughter would see a dead deer. As I pulled into the driveway with a mature buck in the bed of the truck, I knew Claire was waiting beside her mom to welcome me home.

"Are you sure you'd like to see him?" I asked her before lowering the tailgate.

'Yes, Daddy, I'll be fine," she said, shooting me a confident smile.

I lifted her up. She leaned in closer to the buck, wrapping her little hand around the base of the antlers. And then, with eyes the size of pancakes, she looked at me and asked, "When can I shoot a buck like this, Daddy?"

I took her question seriously and developed a plan that would lead my little girl toward the opportunity to hunt a "buck like this" by the time she was 12.

#### THE PLAN

The plan involved Claire joining me in the woods as an observer until she turned 10. Six years of snack packs, coloring books and spacious ground blinds seemed like a good way to start. Then, when she turned 10, she could hunt for a doe. The next year, when she was 11, she could hunt for a young buck. (This was the only time I'd encourage our children to shoot a younger buck, but I wanted a plan designed to ease her into big-buck hunting gradually.) If she hunted for a doe and a young buck her first two years, and completed a hunter safety class, she could start hunting the big

didn't know how she'd react. It boys — 3-year-olds or older after she turned 12.

> My plan also involved Claire hunting with a crossbow, for a few reasons. First, from the moment she saw that big buck in the back of my pickup, Claire had wanted to bowhunt. I try not to place undue pressure on my children to adopt my interests or hobbies, but from an early age, Claire has wanted to be a bowhunter. This presented a challenge, however, because she likely wouldn't be strong enough to pull back and shoot a bow with lethal kinetic energy for several years. A crossbow seemed like the best option for putting her in the bowhunting category and

> Another reason I wanted her to hunt with a crossbow was, much like hunting with a compound bow, she would need to learn how to get close to her prey. This value is especially important to me. I want my children to experience the thrill of being within 30 yards of their prey and develop an understanding for scent control, stealth and patience.

> Last, I wanted her to use a crossbow because they aren't loud and don't kick. I've known a few children who started hunting with a shotgun or rifle only to develop an aversion to the blast or force of a rifle shot. A crossbow would take those variables off the table, letting my little girl hunt without fear or concern.

> That was the plan, and Claire worked through it well. She joined me in the blind and stand for several seasons, each year becoming more excited to be the one hunting someday.







what future seasons will bring.



FIRST SEASON

That day arrived Sept. 1, 2015, the opening day for Nebraska's archery season. I came home from work a bit early and asked Claire if

she'd like to load her crossbow into the back seat of the truck.

Her eyes lit up. "Are you serious, Daddy? I'm going to get to hunt opening day?"

She hugged me, and then rushed off to take a scent-free shower. Thirty minutes later, for the first time, she sat on a stool in a ground blind holding a loaded crossbow instead of crayons.

Nothing walked by that first night. In fact, during the next couple of months, it became evident that my girl would have to work hard for her first deer. She went out with me several times that year but never got the chance to take her tag out of her pocket. We hunted together about 20 times that fall,

and she only took one shot at a doe, which she just missed. She hung up her crossbow that fall only when her little rubber boots quit keeping up with the falling temperatures of winter. I was proud of her patience and persistence.

#### SECOND SEASON

Claire practiced with her crossbow through the next summer, and again in Fall 2016, it was her time to hunt. That second year, because she hadn't tagged a doe the previous year, I told

her she could shoot a doe or young buck that season. We went out a few times and, like the previous year, had a slow start. I saw that she was fighting back discouragement during those walks back to the truck empty-handed. I just kept hugging her and saying, "Trust me, Claire-Bear, you'll get a chance soon."

And then she did. It was a windy Sunday afternoon in early November. I'm a pastor, and I had preached two services that morning to our congregation. I always return home from church tired, so our family ate lunch together, and then I retreated to the bedroom for a brief nap. Claire's best friend, Grace, came home from church with us to spend the day with Claire. When I woke up from my nap, Claire and Grace were dressed in camo, sitting in front of my bedroom door, giant smiles covering their faces.

"Daddy," Claire said, "would you take me

The author's daughter, Claire, has and Grace hunting?" grown up considerably since her first "You bet, let's do it," I replied. hunt. And the author can't wait to see

We drove to the farm and set up a ground blind along a well-worn game trail. It was

breezy. A 30-mph wind blew in our faces, so I knew scent control wouldn't be an issue. We sat on buckets, shoulder to shoulder, peering through the mesh windows for any sign of movement. With about 20 minutes of shooting light left, a young buck stepped out from a patch of cedar trees and took a few steps on the path headed toward our ground blind. Claire saw it first, and she instantly began to shake. When I saw her, I looked out the front window and saw what she was looking at: a 1-1/2-year-old buck, browsing on a mulberry tree straight out from the blind.

"I don't think I can do this, Daddy," she said with a gasp.

I put my hand on her knee and squeezed.

"Listen to me, sweetie, I know you can," I said. "Just take

a couple of deep breaths. You're going to have plenty of time before you need to shoot. Just relax and enjoy the moment."

The deer didn't know we were there. It grazed, took a step, grazed a bit more and then walked a few more steps. It took the young buck about 10 minutes to reach the place on the path that presented Claire with a broadside shot. By that time, she had stopped shaking. When I whispered, "You can shoot whenever you feel comfortable," Claire picked up the crossbow, took

it off safety and pressed her eye against the scope.

Thwoink.

The bolt zipped through the buck's chest, right behind his front leg. He dug his front legs into the dirt, spun around and ran back into the woods.

"You did it, sweetie!" I said. "I think you made a great shot."

We shook the blind with excitement, giving each other multiple high-fives and hugs. We waited a few moments, got out and found the blood trail, and then jumped into the truck to pick up the rest of the family. The six of us returned to track the buck. We found him 50 yards from where he had re-entered the woods. Claire and Grace grabbed one side of the rack, and I grabbed the other. We dragged the buck to the truck, loaded it in the back and then drove it home. to show her mom. I butchered the buck that night, as Claire and Grace sat wrapped up



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in blankets on folding chairs by my side. Drinking hot chocolate, we told and re-told the story of the hunt again and again as we put the meat in the freezer.

#### THIRD AND FOURTH SEASONS

This past year, 2020, was hard for all of us. With all the negative surprises COVID delivered, it gave Claire and me a gift. Because of an outbreak in our area, Claire got a week off from school during the peak of the rut. We hunted together several times that week, seeing multiple nice bucks just out of range. One night, however, Claire and I sat in a ground blind in a ½-acre food plot tucked into the timber along the Platte River. We had planted Secret Spot in this plot, and our cameras revealed that deer were hitting it most evenings. We tucked a hub-styled blind into a pile of felled logs and brushed it in with cedar branches and big bluestem grass.

An hour before sundown, a doe walked into the plot, and a nice 3 -½-year-old buck followed behind. When he stopped 17 yards from the window, Claire made a great shot. The buck ran 60 yards before piling up in the trees. Her first mature buck.

That happened Nov. 14, 2020. On the same day a year later, Claire did it again. Nov. 14, 2021, was a Sunday, and the rut was full speed ahead. After church, Claire asked if we could go out. She flashed her bright blue eyes in my direction — the ones that hold complete power over me — as she said, "Pretty please."

Garrison Keillor said, "The father of a daughter is nothing but a high-class hostage. A father turns a stony face to his sons, berates them, shakes his antlers, paws the ground, snorts and runs them off into the underbrush, but when his daughter puts her arm over his shoulder and says, 'Daddy, I need to ask you something,' he is a pat of butter in a hot frying pan."

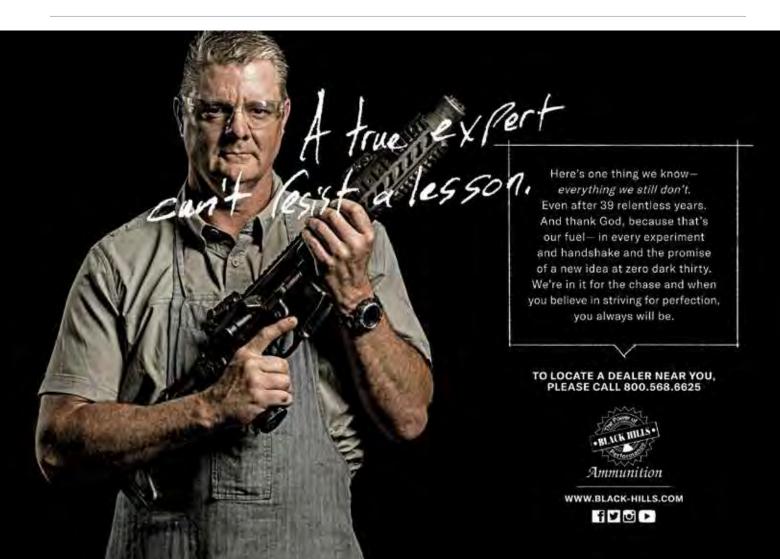
I smiled back and told her, "Let's get ready to go." (Butter in a hot frying pan, I know.)

We sneaked way back to the main channel of the river, found a cedar tree and snipped out a few of the lower branches. We sat against the trunk, trying not to move, hoping a buck would walk by looking for a doe. About an hour later, that's what happened. A mature 4-by-4 walked along the riverbank and stopped about 14 yards from Claire, who was bearing down on the scope. She pulled the trigger and sent a bolt through his vitals. He ran about 50 yards and went down in sight.

#### LOOKING FORWARD

From crayons in the blind to crossbows resting on nice bucks as we take photos of Claire's deer, it's been a wild and glorious ride. I'm so thankful for the sport of deer hunting for the time it's given me with my girl. I can't wait to see what upcoming seasons have in store for our father-daughter duo.







ew Imperial Whitetail Revive is an annual food plot planting designed as a rotational crop for planting in spring. Revive freshens the soil and improves soil quality and nutrient uptake for the next planting. By incorporating Revive into a multi-year planting rotation with perennials and fall annuals, you can maintain your soil in top growing condition and maximize efficiency in the uptake of nutrients from the soil.

Let's be clear about what Revive is: It's a blend of buckwheat and sorghum designed as a soil revitalization crop, not primarily as a forage for deer. As such, it's a best-practices tool that will appeal to hunters and managers who adopt a year-round, multi-year approach as stewards of their land.

#### REVIVE IS A TRUE CROP ROTATION TOOL

Revive isn't a traditional food plot planting that would be planted to attract and hold deer as forage. Rather, it's a true crop rotation crop designed to be planted in spring and summer between perennial food plot plantings, or in spring between fall annual plantings, primarily to revitalize the soil.

Crop rotation is a practice applied in seedbeds that have had the same crop growing in them for long enough that the soil builds up naturally occurring fungi and pests. The rotation crop should consist of different types



of plants than the existing crop. Even-

tually, any seedbed will need to plant-

ed in a rotation crop to freshen the soil of disease (the general term used

to describe problems such as brassica

toxicity, abundant pests in the soil and

With some crops, it can take years

for signs to appear that crop rotation

is needed. With brassicas, it's recom-

mended that a rotation crop be plant-

ed every two years. The main issue

spindly crop roots).



#### IMPERIAL WHITETAIL®

- Soil type required: well-drained sandy loam to medium-heavy soil.
- pH level required: 6.0 to 7.5. Sunlight required: six hours per day.
- Seeding rate: 49 pounds per acre. Seeding depth: ½ to 1 inch.

with brassicas is a buildup of disease organisms (fungi) that can occur when brassicas are planted at the same site again and again. This can be true of any forage that's grown repeatedly in the same spot year after year, but it can be especially true of brassicas.

#### REVIVE'S OTHER BENEFITS

There are reasons why Whitetail Institute chose buckwheat and sorghum as the seed components in Revive. As mentioned, Revive is designed primarily as a crop rotation tool to give the soil a disease break. As we'll discuss, it does a lot more.

Revive can tolerate soil pH and fertility that are lower than optimum, and it will still grow quickly. That and the thick stand it produces lets Revive compete with and suppress most annual weeds.

In addition, Revive is a great green-manure crop that mellows the soil. It rapidly produces lots of dry matter that can be tilled back into the soil, where it quickly decays and builds the soil and makes nitrogen and minerals available. Revive is especially good at making phosphorous more available in the soil. Phosphorous is one of the three main soil nutrients plants need, along with nitrogen and potassium. All soils have some phosphorous that plant roots can absorb, but most soil phosphorous is in an unavailable (insoluble) form the plants can't access. Revive roots release acidic compounds that help convert some phosphorous from the unavailable to available form. The WINA62 sorghum in Revive has extensive root systems that find nitrogen that's deeper in the soil, helping to prevent leaching. When Revive is disked or tilled into the soil, the nitrogen becomes available to subsequent crops.

For example, here are the results

of two fall soil tests performed a year apart with a planting of Revive be-

	PRE-REVIVE SOIL TEST 09/03/2020	<b>POST-REVIVE</b> SOIL TEST 09/21/2021	% INCREASE
Phosporous	47 lbs./A	61 lbs./A	29.78%
Potassium	37 lbs./A	61 lbs./A	64.86%
Calcium	841 lbs./A	897 lbs./A	6.65%
Magnesium	56 lbs./A	83 lbs./A	48.21%

Revive also promotes the health of various beneficial insects and animals. It can be planted in strips to attract pollinators that help control aphids. Revive also promotes a huge diversity of beneficial underground organisms that contribute to soil health, and it improves the ability of air and water to move through the soil column.

#### **HOW TO USE REVIVE**

Revive should be planted in spring after the danger of late frosts has passed. Revive grows quickly and will be ready to till into the soil when 10 percent of the buckwheat in the stand has flowered (that can be as quickly as four to six weeks.) After Revive reaches that stage of growth, till it under (best) or mow and then till it to incorporate the plant matter back into the seedbed. When you do that, the plant matter will rapidly break down and release the nutrients that will be available for uptake by the fall crop.

Perform a laboratory soil test a few weeks after you incorporate Revive into the soil. As mentioned, Revive is fairly forgiving of soil pH that's lower than optimum, but be sure you lime before planting if needed by your subsequent crop.







It can pump new life into old plots.

by Scott Bestul

f you ever doubt how attractive a clover plot can be to whitetails, I have scads of stories for proof. But the latest, and perhaps my favorite, occurred this past fall. My dad, who's 91 and still chasing whitetails, was sitting at one of our best clover plots on Minnesota's archery opener. Several does had fed into the plot early, but three bucks waited until prime time to appear. Dad, never too concerned about antler size, ignored the two larger bucks in the rear and focused on the lead buck. When that deer fed into bow range, Dad leveled his crossbow ... and delivered a bolt that sailed over the buck's back.

The other two bucks decided the odd sound from the tower blind was enough excitement for one night and left, but the target buck settled down to munch on more clover. Amazingly, Dad stood, re-cocked the crossbow, loaded a second bolt — and missed again.

Dad was, for obvious reasons, pretty upset about his performance during that amazing hunt. But with a little coaching, a pep talk or three, and the construction of a better shooting tripod, I coaxed him back for another hunt. On that evening, barely a week after his three-buck encounter, Dad watched as another buck — this one a tall-racked 10-point — fed into the same spot as the deer he'd whiffed before. This time, Dad settled in, touched off the shot and watched as the mortally wounded buck tore off. We recovered the buck only 15 yards off the edge of the Imperial Whitetail Clover.



ly important — purpose: to sing the praises of frost-seeding clover. Months before that hunt, during a March day when winter and spring fought a duel for dominance, I visited that clover plot. On my shoulder was a hand-crank seeder loaded with Imperial Whitetail Clover. Patches of snow dotted the landscape, but I walked the plot and spread seed that fell across frozen dirt, swaths of dormant clover and streaks of ice and snow. Typically I'm drenched in sweat when I finish seeding a plot, but that day, my cheeks were red, and I stuck my fingers in my coat pockets at every opportunity.

But the result was worth it. That clover plot, now in its fifth year, got a shot in the arm that made it just as attractive to whitetails as it was in its prime. Frost seeding was responsible for that, I'm convinced, and also for my dad seeing four great bucks during a pair of hunts.

#### WHAT IS FROST SEEDING?

Like most food plotting equipment and techniques, frost seeding is something plotters stole directly from farmers. The practice is used in agriculture to boost production of existing pastures. According to the Penn

State Extension website, "Frost seeding is an economical way to establish cover crops in winter in standing wheat or barley or to supplement a thin forage stand. Though not as foolproof as drilling, it is a reasonably successful practice." For several years, I hunted a large property near my home, and the farmer used rotational grazing to keep pastures viable for his sheep and cattle. He commonly used frost seeding to extend the life of his pastures without enduring the expense of tilling and replanting those fields.

## IMPERIAL WHITETAIL

• Includes the only clovers ever scientifically developed for food plots for white-tailed deer.

- Perennial: Lasts up to five years from one planting.
- High protein; heat-, drought- and cold-tolerant; disease-resistant.

#### **Optimum Growing Environment:**

- Soil Type: Good quality, heavy soils that hold moisture (bottomland soils).
- Avoid lighter or sandier soils and sites that drain quickly.
  - Soil pH: 6.5-7.5
- Sunlight: As little as four hours of broken, filtered or direct sunlight per day.
  - Can be planted in spring or fall.



directly on the ground, which, thanks to freezing temps at night and thawing temps during the day, is continually heaving. The active nature of the soil lets seeds make contact with the dirt and then get worked down into the topsoil. When soil temps warm, seeds germinate, and they're off to the races. I've used frost seeding mostly in clover plots, but you can also use it effectively in annual food plots, such as wheat, Pure Attraction, and oats.

From my experience, frost seeding has three major benefits. First, it can extend the life of a clover plot by introducing new growth into a sea of plants that are nearing the end of their life cycle. As most veteran clover growers know, the first few years of a clover plot usually represent the peak attraction period for deer. The plants are young and tender, not only packed with protein but also tasty. But as the stand ages, even with the best maintenance, the plant population thins. Frost seeding can give an aging plot the shot in the arm it needs in its last phase of life.

Second, frost seeding can help combat weed growth, particularly if there are bare spots in your plot. Some of those will likely

be evident as you visit the plot to frost seed, but I know several land managers who mark those under-seeded areas by flagging them before snowfall. Then, when they return in spring, they have clearly defined spots that require a little extra attention. Imperial Whitetail Clover is a fairly aggressive grower after it's established, and frost seeding lets desirable plants get a nice head start on weed competition. In my experience, this has been so successful that I can often forgo herbicide use and keep weed growth at bay by simply mowing at the appropriate times.

Finally, frost seeding can save time and, occasionally, money. Although even frost seeding won't make a solid plot last forever, it delays tilling up and replanting a plot at the end of its life cycle. Most of us are hard-pressed for time, and some years, we don't have enough hours to do all the things we should. More than once, when life has dealt me a schedule crammed with stuff that interferes with deer management, I've used frost seeding to allow a one-year reprieve.

#### **HOW TO PULL IT OFF**

As noted, frost seeding is best done when the ground is still frozen but spring is threatening. My friend Kip Adams, director of conservation at the National Deer Association, is a Pennsylvania resident and land manager. He likes to frost seed in late February through March, because spring green-up is typically in mid-April in the Keystone State. Adams isn't afraid to frost seed into an inch or more of snow. This timing should work across most areas of similar latitude, with the best windows occurring earlier

in the South (January and February) and later in more northern climes (April or even early May in some years).

Ideally, plots you intend to frost seed should be hit with a herbicide in fall, which should knock back weed competition and give your preferred crop a great start. But if you missed this step (I'm typically guilty, as I spend my limited free time hunting in fall and — full confession — I've had my fill of food plot work by then), go ahead and frost seed. Most expert plotters I talk to follow recommended seeding rates when frost seeding, but I tend to apply a little extra seed, especially in areas I know are thin or bare. I don't expect a full germination catch when frost seeding, so I'm typically a little generous.

Obviously, you should conduct a soil test to find lime and fertilizer needs, but that can be delayed. I wait until full green-up, complete the soil test and then apply the recommended amendments.

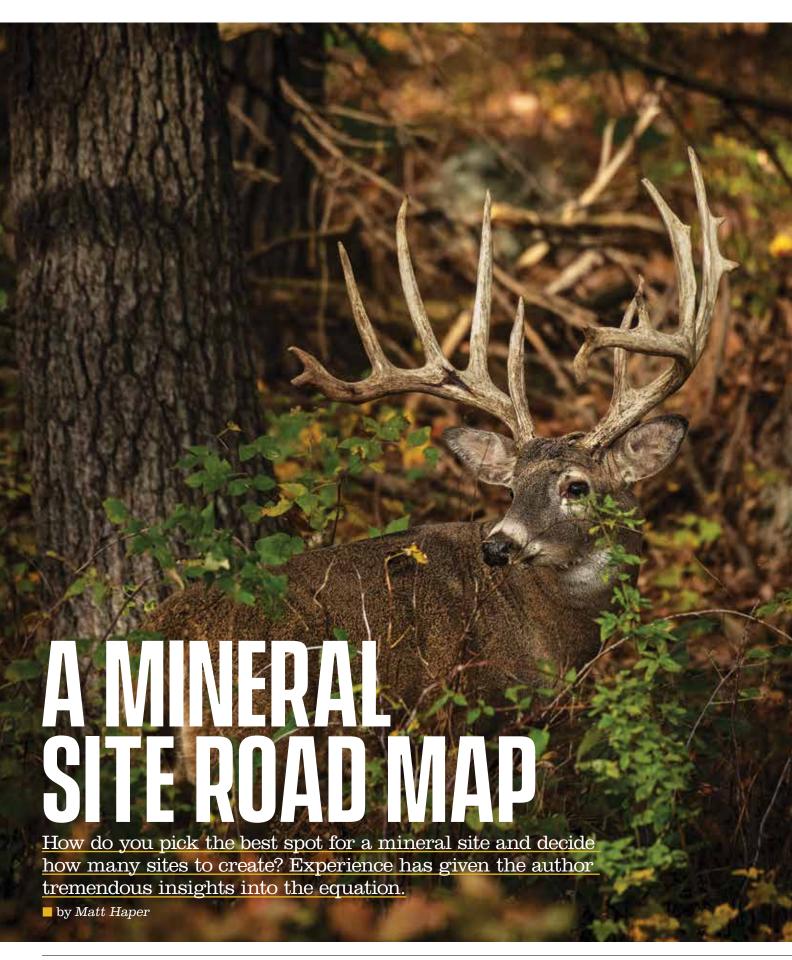
It's important to take follow-up trips to inspect the plot after the weather has warmed and green-up is underway. These let me gauge the success of my seeding, but even more important, get an idea of weed competition. I've learned through hard experience that getting a jump on weed control starts with identifying the culprits early (I consult with people smarter than me to identify weeds) and then make a plan to curtail their growth before they have too much of a head start. Lean on Whitetail Institute's staff to help identify and remedy weed issues.

#### CONCLUSION

Frost seeding will never replace the traditional steps for establishing a food plot. But it can be a viable tool in a food plotter's arsenal and, as my dad's buck proved this past fall, can pump new life in a plot that might have been history without it. In fact, I'm going to visit that plot again this spring with a seeder slung on my shoulder. I'm hesitant to say goodbye to a plot that's served us well, and I'm hoping it can produce at least one more buck for our crew.









y dad always says, "You have to have the right tool for the job." I realize that's not a John Harper original, but it's still true.

The right tool helps you complete a job accurately and can make the process more efficient. Then again, even the perfect tool, if used improperly, can produce disappointing results. Case in point: I used a backhoe attachment on my skid loader a couple of summers ago to dig a trench for a power line, and suffice to say, it did not work well. In fact, my "trench" looked like I was attempting to dig it blindfolded, resulting in a series of misshaped, uneven holes that varied in depth and straightness. I was convinced the attachment was a piece of crap, and I was resigned to head to town and rent a trencher. Before I could extricate myself from the loader cab, my nephew showed up, grinning, and asked how it was going. I shrugged off the not-so-subtle slight and expounded on the worthlessness of that implement. He asked if he could give it a shot and jumped in the skid loader while I pontificated on the futility of his attempt. After about 10 minutes, I was seeking a fork and knife to help me eat crow, as he dug a perfectly straight, even trench. After completing the job and tidying up my mess, he shut off the machine and made a comment about offering operating lessons.

Much like a tool must be used properly, a product must be used correctly for it to perform as intended. Some products don't work even if used as directed, but even the best items won't perform if they're not used appropriately. Several years ago, I was working a booth at a hunting showing when an upset and slightly inebriated guy told me the food plot seed I was representing didn't work. I was working for Whitetail Institute, so I knew the seed worked as advertised, but he insisted otherwise. I asked several questions, including whether he'd followed the directions for soil testing, ground prep and other considerations on the back of the bag. In colorful terms, he insisted he'd followed them to the letter. When I asked which product he'd used, he loudly exclaimed it was the seed in "that blue bag right there." "Sir," I replied, "we don't have any food plot seed in a blue bag. What was the name of the product?" With much bravado, he yelled, "That 30-06 (expletive)." "Um, that's a mineral product," I said. "Yep," he said, "and not a damn thing grew." I was about ready to

respond when a bystander said, "You idiot, you just planted a half-acre mineral lick."

That's an extreme example of misusing a product. It's far more common to make a few unknowing missteps, which can result in less-than-perfect outcomes.

#### WHY USE A DEER MINERAL?

Deer mineral products have been on the market for years. They are intended to supplement the mineral and vitamin needs of deer, some of which might be lacking in the natural environment. Critics contend that deer have survived for years by getting minerals from food. That's true, because deer as a species would survive without nutritional supplementation. However, you must consider the changing habitat in whitetail country. Humans continue to expand our occupation of the land for dwellings or food production. Urban sprawl continues its advance on traditional deer habitat, diminishing the natural resources deer use, including forage (lawn grass replacing browse, for example). In ag country, the objective is to produce as much food as possible. To accomplish that, farmers depend on the soil to give up nutrients to spur production. Some of those nutrients include minerals deer need. Proper agricultural practice calls for replenishing those nutrients through fertilization, but we see mineral deficiencies in most soils. In fact, almost all soils are deficient in one or more minerals regardless of location.

There's another consideration: the desired goal for a deer herd and the strategy required to achieve that. If you simply want deer on your property to survive, you probably don't need mineral supplementation. But if your objective is to improve the health and vitality of the herd, mineral supplementation should be part of your program.

As mentioned, all soils have some type of mineral deficiency. If you want to provide the best nutrition possible, a mineral supplement can help boost limited mineral levels on your property. Think of it like taking your daily mineral/vitamin supplement. We get minerals and vitamins from some food, but if we want improved nutritional health, we need to take a supplement. We could design a food consumption strategy to achieve that, but realistically, that approach is impractical to impossible. The same holds true for mineral nutrition in a wild deer herd.

If you still question the importance or validity of mineral supplementation, ask why it's a common practice in cattle production. Stacks of research have shown that mineral supplementation for cattle helps improve breeding success, milk production, weight gain and many other beneficial outcomes. Cattle mineral and deer mineral differ in specific component levels, but the effect on deer provides the same benefits.

#### HOW TO USE DEER MINERALS: WHERE TO PUT THEM

When considering mineral tactics, you must first decide where to locate sites. I've created successful sites (meaning deer used them) in many types of locations. I've created sites in the open, next to cover, in cover, on a trail, off a trail, near ponds, in river bottoms, on oak ridges and next to bedding cover. It's worked in every case, but the caveat is the frequency and probability of success. Some areas are far better bets for creating mineral sites deer use heavily. Although there are probably more contributing factors, focus on these main considerations: comfort and safety, normal travel routes and soil type.

Deer are nervous animals, which comes as no revelation to hunters. They're constantly on alert, smelling, listening and looking for danger, especially when they're eating. A deer's level of vulnerability is dictated by how fast and efficiently it can escape if threatened. Often, that equates to the proximity of escape cover it can use to elude and hide from danger. Considering that, the closer to cover you create a mineral site, the more likely deer will feel comfortable spending time there. That doesn't necessarily mean the site should be in the thickest cover on the property. Rather, it should be close to cover. I'm not saying deer wouldn't use a mineral site deep in the brush, but I've found that simply placing it close to or on the edge of cover works equally well. Plus, consider how much pressure you produce when replenishing the mineral. One of my first sites, created more than two decades ago, was in a heavily wooded finger strewn with blowdowns and choked with wild rose bushes and buck brush. The site worked well, and deer used it consistently. But even if I cleared a path to the site, I still crashed through 100 yards of cover every time I went there. Most of the time, I spooked deer that were bedded nearby or were at the site eating mineral. Further, I like to run cameras at my mineral sites, so I visited now and then to pull camera cards or replace batteries. Camera evidence showed it took a little time for things to get back to normal after my intrusion. That was especially true with older bucks, which didn't appreciate the human smell and commotion I created by wandering deep in cover. So I moved the site closer to the edge of the wooded finger — maybe 10 yards in the cover before it opened to a food plot. After a brief time, deer were using the site regularly, and I wasn't adding as much human pressure. I drove along the food plot and got to within 15 yards of the site in my side-by-side or truck, which would move deer in the area away without me tromping around in 90-degree weather, getting sweat everywhere. Additionally, I greatly reduced the number of ticks, mosquitoes, poison ivy rashes and thorn scratches I endured.

The second factor is finding an area deer already frequent. That seems obvious. Why would you creatise a mineral site where deer rarely visit? Yet I have seen this and done it myself. Some marketing copy on deer mineral packaging claims the product attracts deer from miles away. Heck, you might even bring in a different subspecies if the wind blows in the right direction. Minerals are

made to attract deer, but that doesn't mean you should hide the sites from them. The purpose of using a deer mineral is to create a site that will best encourage use regardless of the attractiveness of the mineral. I like to find heavily traveled deer trails and create sites no more than a yard or two to the side of the trail. I've shifted my focus to trails that lead to food plots or watering sites, because deer have a reason to use those travel routes. Locating sites there seems to produce the most frequent and consistent activity.

The final factor is soil type. This consideration has not been discussed much but can dramatically effect site usage. Commonly, a hole starts to emerge at a mineral site deer use consistently. Deer dig and paw the ground and actually eat dirt to get to the mineral. Even if you use a mineral block, you'll find that deer more often eat the dirt around that block rather than licking the block. The dirt around the block contains minerals that have leached into the soil, and deer work on that versus the block. Therefore, the type of soil in which you create a mineral site is important, as it plays



# 30-06® MINERAL/VITAMIN

• Delivers essential macro and trace minerals along with vitamins A, D and E, which are needed for a healthy herd and for bucks to reach more of their genetic potential in antler growth. Antler Up D3 increases calcium and phosphorus uptake to promote growth and development of antlers. Promotes heavier body weights, and improves the overall health of deer.



#### IMPERIAL WHITETAIL

### 30-06® PLUS PROTEIN

- Includes necessary vitamins and specific minerals in correct forms and ratios for antler growth, pregnancy and lactation.
- Contains a 10 percent protein boost.
- Easy to use. Just rake or shovel an area 2 to 3 feet in diameter and mix with the soil.



# 30-06® THRIVE

• This is a fall and winter product meant to help the overall health of deer with the use of several crude ingredients during specific seasons.



- Pallet buy only; limited supply available.
- Fortified with 30-06 Mineral/Vitamin Supplement.
- Highly attractive to deer. Contains roasted soybeans, black-oil sunflowers, cracked and shelled corn, as well as Devour, a proprietary Whitetail Institute flavor and scent enhancer that deer find irresistible.



# 30-06® MINERAL BLOCK

• A professionally formulated, high-quality mineral and vitamin supplement, not a glorified salt lick. It's longlasting and economical to use.

a part in the consumption equation. If you create a site in sandy soil that leaches rapidly, it will be underused long term. In other words, you want the mineral to leach into the soil, but you don't want it to leach in so rapidly and deeply that it goes away. I like to create sites in soils that drain well but are not sandy. I don't like standing water, but I also don't want a mineral site in light, sandy soil that will leach the mineral away after the first couple of hard rains.

#### HOW TO USE DEER MINERALS: HOW MANY SHOULD I HAVE

After you've determined where to locate a site, the next question is how many sites you should create. The rule of thumb — or at least the most common recommendation — is one site per 40 acres. But as with most rules, situational variability can alter the plan. The deer population will play a major role in the amount of minerals sites you create at a property. The objective is to have all the deer on the property consume the mineral to benefit overall herd nutrition. You need each deer to eat sufficient amounts of mineral. If you set up simple attraction sites, those factors would not be that important, but you must consider them for nutritional management. Mineral sites can also be areas of high competition, as does and bucks try to assert themselves over less dominant deer to use the site for themselves. Thus, having fewer mineral sites creates more competition, which is multiplied in areas with high deer densities. To overcome that, many folks create more sites. Some properties with lots of deer might require a mineral site for every 20 or even 15 acres. Generally, I err on the side of having more sites. If you have cameras at the sites and notice consistent aggression or that your sites must be replenished often, that's a good indicator you should create more sites.

#### HOW TO USE DEER MINERALS: STARTING OUT

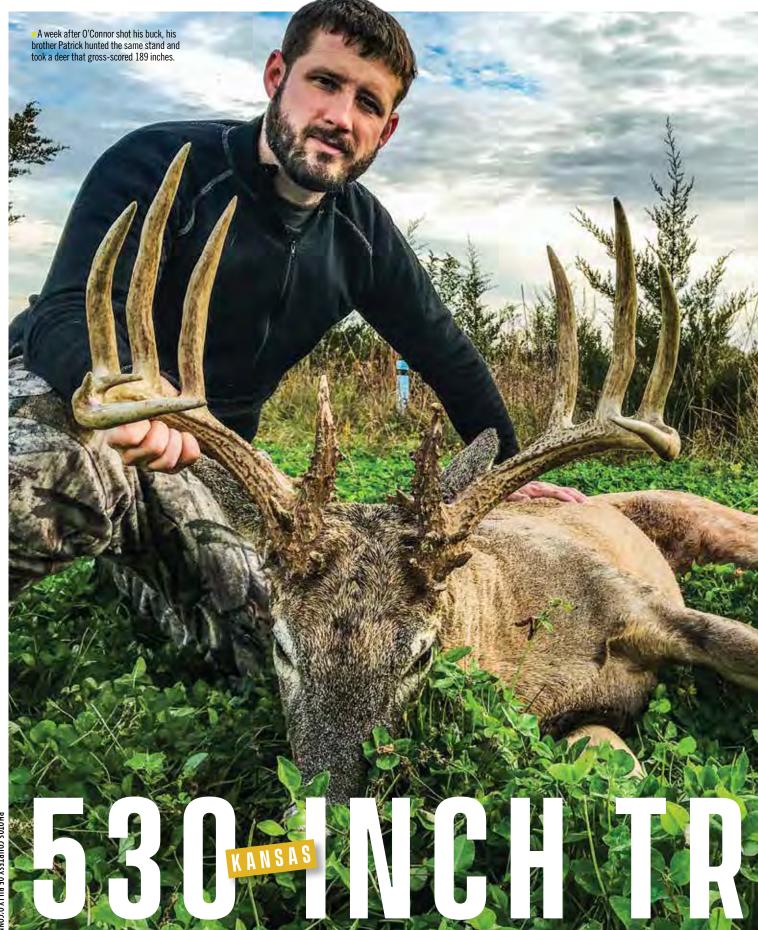
Some mineral sites at my farm have been there several years. Deer consistently use those sites year after year, and provided they're in the right spots, there's no need to change them. However, if you're starting with a new property or want to create more sites, how do you go about it? First, follow the where-to instructions discussed earlier to identify possibilities. Then, I like to run a trial. I map the property into sections or grids to make sure my test sites are not on top of each other but rather spread out. Then I put out several test spots using a small amount of mineral — maybe 5 pounds per site. During the next few weeks, deer will tell you which sites they like best. Add more mineral to sites deer are using heavily, and abandon the less-used areas, continuing the process until you have enough permanent sites.

#### CONCLUSION

Mineral supplementation can be an extremely beneficial component of a nutritional management program. But it's not as easy as just pouring some on the ground and expecting to maximize the benefit. With a bit of planning and some experimentation, however, you can develop highly productive and nutritionally beneficial mineral sites.







PHOTOS COURTESY OF BILLY O'CONNOR



This family took their food plots to the next level, and it resulted in a whitetail dream season.

by Gordy Krahn

hen he purchased 160 acres of prime deer habitat in his home state of Kansas, Billy O'Connor's goal was to kill a Booner during the first five years of ownership. A lofty goal, yes, but the Sunflower State hunter couldn't have even imagined the enormity of what would occur during the final season of that countdown.

Like so many rural Midwestern lads, the 45-yearold O'Connor, who works for Whitetail Properties Real Estate, a company that sells prime hunting land in 38 states, grew up pursuing whitetails. His property sits adjacent to the family's roughly 700 agricultural acres in the eastern part of the state. Agricultural practices take priority on the family land, but O'Connor's 160 acres were set aside exclusively for hunting.

Kansas has long been a destination for whitetail aficionados — a big-buck mecca for discriminate hunters — and rightfully so. Deer numbers and buck quality have increased dramatically during the past two or three decades — the culmination of good genetics, plentiful food and sound management — and whitetails can be found throughout the state where suitable habitat exists. The highest population densities occur in the eastern third of the state, where whitetails have adapted well to Kansas' contemporary landscape, taking cover in natural woodlands, shelterbelts, and old homesteads and grasslands, and finding abundant food in adjacent agricultural croplands — and hunters' food plots.

"Let me put it this way, the deer aren't starving in Kansas, at least not where I'm at," O'Connor said. "There are agriculture fields all over, and during the early season, there's a lot of natural browse for them to feed on. And then there's the food plots. We started out planting ours with local seed I got from my cousin — wheat, clover, turnips, chicory and such — and it was OK. But there are ag crops all over, and my thought process was that I wanted to give the deer a selection of feed they couldn't get elsewhere. I know they're going to leave my property, but I wanted to make sure they didn't have any reason to leave."

And for the Kansas hunter, that meant taking his food plots to the next level.



#### BETTER FEED EQUALS MORE DEER

When Whitetail Properties developed a business relationship with Whitetail Institute, O'Connor decided to try some of its products to bolster his food plot efforts.

"At that time, I had four food plots, the biggest one about an acre," he said. "When pressive buck since it was a youngster. I switched to Imperial Whitetail Clover in the larger plot and Whitetail Oats Plus in the others, deer numbers really picked up, and we were seeing more mature deer."

Whitetail Oats Plus is a high-sugar, cold-tolerant forage oats that establishes quickly and holds deer on a property longer into winter. It includes small amounts of triticale to enhance winter hardiness. Genetically designed for white-tailed deer, Imperial Whitetail Clover packs extremely high protein content critical for antler, muscle and bone growth in bucks. Whitetail does use the much-needed nutrition to help deliver healthier fawns and produce more milk.

So when the 2018 season rolled around, the food plots were attracting deer like bees to honey, including a special buck O'Connor had been keeping an eye on for several years — a massive nontypical he tagged "Beamer."

"Yeah, there was a significant difference once we started using the Whitetail Institute products," he said. "It was nothing to see 25 or 30 deer during a sit. Beamer actually came in the first time I hunted over a Whitetail Oats Plus plot. Does were out there feeding, and they'd bring their heads up, and they looked like brontosau-



ruses coming up out of the swamp, with oats hanging out of both sides of their mouths."

#### A BUCK FOR THE BOOKS

O'Connor had been aware of the im-

"My brother Patrick first saw him when he was hunting in 2014, when the buck was 1.5 or maybe 2.5 years old. Even at that young age, he had 12 small points. We started getting trail camera pictures of him, and we knew he had a lot of potential. Then the next year, he kind of blew up — like maybe 16 points, poking out everywhere. And we're thinking he's only 2.5 years old, but it's just that he had all these points."

O'Connor watched the buck grow, biding his time, and by 2017, Beamer had developed into an absolute giant.

"We guesstimated him to be about 190 gross inches because he now had lots of mass to go long with all of those points," he said. "Every year, his shape kind of changed, but there were always similarities, and he had a cut in his ear, so he was easy to identify."

But that year, Beamer broke off half of his rack, and O'Connor passed on him, hoping the big buck would make it through to the next season.

In 2018, O'Connor was hunting from a homemade tower blind overlooking the largest of their food plots, then planted in Imperial Whitetail Clover.

"Putting up this blind was kind of a

family affair, (as it was) built from telephone poles and wood from an old barn my grandpa tore down," he said. "It's in the south-central part of the property, and on the western side is a big overgrown pasture full of plum thickets, dogwood and cedar. We put a lot of effort into building this thing, and it was initially designed to be a rifle stand. We didn't think deer would come in to the plot because that stand stuck out like a sore thumb. Actually, we put the food plot around it just to have a firebreak. We planted it in Imperial Whitetail Clover the first year and noticed immediately deer were coming to the food plot. They didn't even care there was this big, massive blind down there. And it's just been that way ever since. You could have two guys and a dog up there in that stand, and they don't seem to care."

According to O'Connor, Beamer had dropped a bit in size that year, but he was more symmetrical.

"I'm not saying he was a pretty deer, but he was more balanced that year," he said. "But I didn't think he'd score as high as the previous year. But we're thinking this deer is 6.5 years old now, and we have outfitters who have leased land on two sides of us. I was wishing he was a bit bigger, but we had to try to get him, and he had been frequenting the tower stand food plot."

#### THE BATTLE WITH BEAMER

O'Connor was hunting with his crossbow, sitting in the tower blind with his dad, when Beamer showed up and walked right into range.

"I actually had him in range, but I let him go," O'Connor said. "Then he turned around and walked away, and I'm looking at him through my bino, and I'm thinking, 'What am I doing?' I knew I had made a big mistake."

The next evening, O'Connor hunted from the same stand with Patrick. "I had a pretty good idea Beamer was coming to the food plot from the overgrown pasture to our west, probably one of his bedding areas," O'Connor said. "I was glassing and spotted his tines in the brush maybe a couple of hundred yards away."

The buck crossed the food plot, walking straight toward the hunter.

"We were running out of shooting light as he worked his way across the food plot and into range," O'Connor said. "He was coming straight at me, and I didn't want to take the straight-on shot." Finally, the buck turned broadside at 40 yards, and the hunter took the shot. "I hit a little farther back than I wanted, but I felt good about the shot," he said.

The buck made it 200 yards to the timber, and it was getting dark. So rather than risk bumping the deer, O'Connor and his brother made the difficult decision to leave it and come back in the morning.

"We came back the next morning and found that he had gone in about 100 yards, crossed the creek and died on the other side," O'Connor said.

The buck rough-scored an incredible 184 gross inches. But that's not where the story ends.

#### MORE TO THE TALE

A week later, Patrick killed an incredible buck they called "Crazy Base" from the same stand using a crossbow. The buck unofficial-

ly green-scored 189 gross inches, with a 170-inch frame and another 19 inches of points growing out of the antler bases.

"So for Pat to get that deer, we were beside ourselves," O'Con-



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nor said. "Holy cow, we had both shot the biggest deer of our lives off this farm during the same year and from the same stand.

"And while all this was going on, we started getting night pictures of a really old buck we named 'Night Rider.' He used to only hang out on our neighbor's farm, but this year, he became a regular on our place. My father hunted him with a bow the entire season but never saw him in the field. But he eventually shot him on the opening day of rifle season with his rifle at 20 yards out of one of our interior bow stands — an impressive 160-incher. It was the first time he'd seen the buck during the day."

So three huge bucks came off O'Connor's property in 2018 — a 530-inch trifecta. It was a season like no other.

"A lot of years, we don't kill a single buck here, because we're trying to let them get to a certain age," he said. "But to kill three bucks all over 5 years old with a combined 530 inches of antler on a 160-acre tract in one year — it's the thing whitetail dreams are made of."



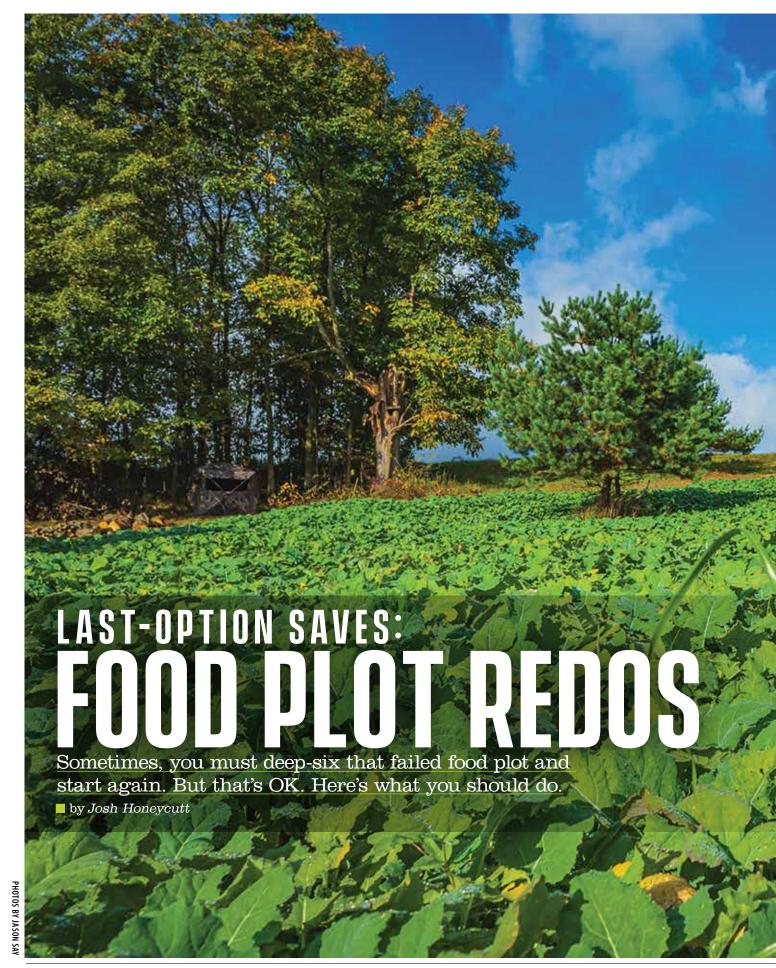


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ood plots can make a man's hair turn gray much sooner than it should, but that usually happens to fellows who don't follow proper protocols and procedures. Regardless of whether you cut corners, Mother Nature takes her toll or some freak encounter occurs, sometimes it's best to cut bait and start from scratch.

Wired Outdoors' Jason Say knows all about that. He understands food plot failures happen and recognizes how to identify them. He also has a knowledge bank filled with last-option saves for when food plots fail. At some point, the smart move is a food plot redo.

#### REASONS FOR FOOD PLOT FAILS

Food plots die for many reasons. Some are obvious yet common mistakes that shouldn't happen. Others are less so and aren't as easy to predict. And some aren't combatable until the last minute, if at all.

You can prevent most food plot failures. Say has been planting food plots for 15 years, and he's learned how to avoid the most common mistakes. The first? Not soil sampling. The worst thing a food plotter can do is try to wing it on lime and general fertilizer.

"They're going to spend \$400 to \$500 on lime and seed and not do a \$12 soil sample," he said. "It's never made sense to me. I soil-sample every one of my food plots even my perennial plots."

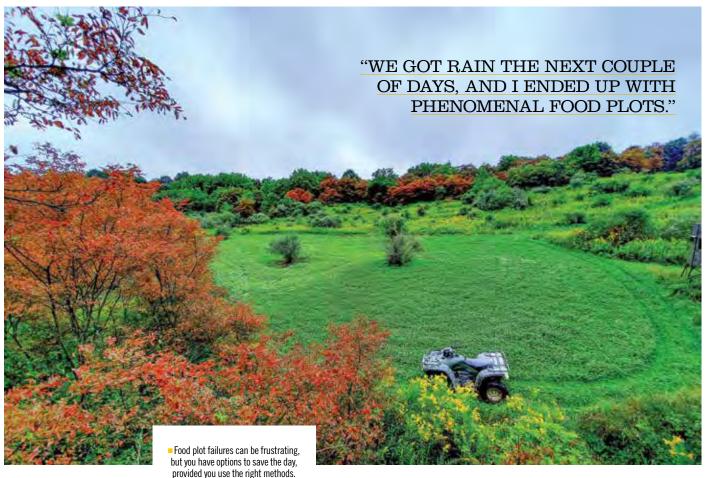
Of course, soil conditions aren't the same from one location to the next. They can even differ in each quadrant of a food plot. The remedy for one area of a property can be different than other nearby locations.

Further, soil conditions can differ from one year to the next in the same square foot of dirt. That makes it important to do soil samples each year and not rely on past sample reports.

"I've planted [the same] food plots for 15 years," Say said. "And every year, I soil-sample them, it's something different. It isn't the same every year. I don't care how well you think you know your soil. The guys who are most successful in food plotting are the guys who don't cut corners."

Failing to prepare a good seedbed is another common mistake. Ensuring quality seedto-soil contact is important for any seed you plant, regardless of the blend or variety. If it doesn't reach the soil, it won't grow.

Also, if you don't adequately cover seeds, birds and other animals can consume them before they have a chance to grow.



"Maybe you don't get rain for a while, you have a bunch of turkeys and birds, and you get a lot of the seeds picked," Say said. "That's a common occurrence you can avoid."

Choosing the wrong blend or seed variety is another blunder. Say said planting a seed blend that's wrong for conditions can lead to failure. For example, planting Imperial Clover in super-dry soil won't work well.

Beyond that, sometimes you can do everything (mostly) right but still have a bad food plotting experience. For example, some people might think they have food plot failure but it was merely overbrowsed.

"I've seen where guys plant a small food plot in the woods, and it's an eighth of an acre," Say said. "They're like, it never grew. And I'm like, put up an exclusion cage. And they're like, yeah, the deer just wiped it out. It never had a chance to grow."

Plants that deer really like, and those that are palatable early in the growing process, are more susceptible to overbrowsing. Say said Power Plant is a good example.

"If you're going to plant it, you need to

plant at least an acre, if not two," he said. "If you

plant a smaller food plot, it gets mowed

Of course, food plotters can also experience things they rarely expect to happen, such as blights, diseases, insects and severe weather.

"Army worms were a big one this year," Say said. "Honestly, I'd never heard of army worms. A good friend of mine plants plots in Kentucky. In a week, they wiped out three of his plots. That was across the state this year. I saw a ton of photos where guys had problems with that."

Fortunately, if detected early enough, insecticides can kill those nuisances. among others. If noticed too late, which often happens in remote areas, it leads to food plot failure, and a redo is in order.

Common and uncommon reasons aside, some food plots fail, and we never really determine why.

"There are even times when I talk to guys and it's hard to determine what happened," Say said. "Their soil pH looks good. They limed and fertilized. Sometimes, plots just don't grow, even when they should have."

There's always a cause, of course, but these can be difficult to determine. It's usually an underlying factor that leads to failure, such as dry conditions, pests or disease. Nonetheless, you have options to save your food plots, provided you deploy the right methods.

#### SPRING FOOD PLOT FAILS: PLAN B

On the surface, it might seem as if spring food plots are easier to redo than summer crops. After all, there's plenty of growing season left to get them back up and running, right? Well, not really.

"When I talk to a guy and their spring food plot fails, 99 percent of the time, I'll tell them to wait and replant in fall," Say said. "By the time you'd replant [in spring], you start to run into those dry summer months. Plus, the weeds you battle in summer are hardy. So if you have a food plot fail in spring, just replant in fall."

The only time it makes sense to replant a spring food plot in spring is if a late frost kills it very early, and you still have plenty of spring weather to jumpstart a second plot. If the plot fails in late spring or early summer, it's best to follow Say's advice and wait until fall.

#### FALL FOOD PLOT FAILS: PLAN B

The remedy is different in fall. You need forage for fall and winter, and the only way to get it is if something grows in your fall food plots. There is no waiting until spring.

"It's important to determine when it's time to panic," Say said. "Let's say you planted at the beginning of August. You get to the end of August, it's been very dry and no sprouts appear. It's very sparse. That's when you must decide, because you have only four weeks of growing season left if you do reseed it."

That's from a Northeastern or Midwestern perspective, though. Say is from Pennsylvania. If you're in the South, it's different. You have a little more time to react because of milder climates.

"Like the guy who had army worms in Kentucky, he did the exact same thing I did two years ago when I had my food plots fail," Say said. "You have a certain growing season for certain blends. When I have a food plot failure, I'm looking for the seed blend that grows the most tonnage in the shortest amount of Mother Nature. She teased those food

time. Most of the time, that's going to be Whitetail Institute No Plow. It has saved me in the past."

#### KNOWING WHEN TO START AGAIN

"Food plots sometimes fail for one reason or another," Say said. "Whether you replant can depend on how much growing season is left, among other things. So often, you get calls from a guy, and they say they planted their food plot and haven't gotten rain for a week. They're like, 'Should I replant?' You're like, 'No, man, it's going to be OK.' Ninety percent of the time, you're going to get what you need. It's going to be fine. Don't panic.

But in 2020, Say panicked.

"We had a perfect storm, so to speak," he said. "We got rain the day after we planted, which was just enough to get a little germination. Then we didn't get rain for six weeks. It was done. I had to make a choice at that point. I had nine plots that I could tell were going to fail. I'd never had anything like that happen before."

Of course, you can chalk that up to

plots just enough to spark growth but then pulled the rug out from under their feet. Yes, she can be a nasty little trickster. But make no mistake, the old gal is in

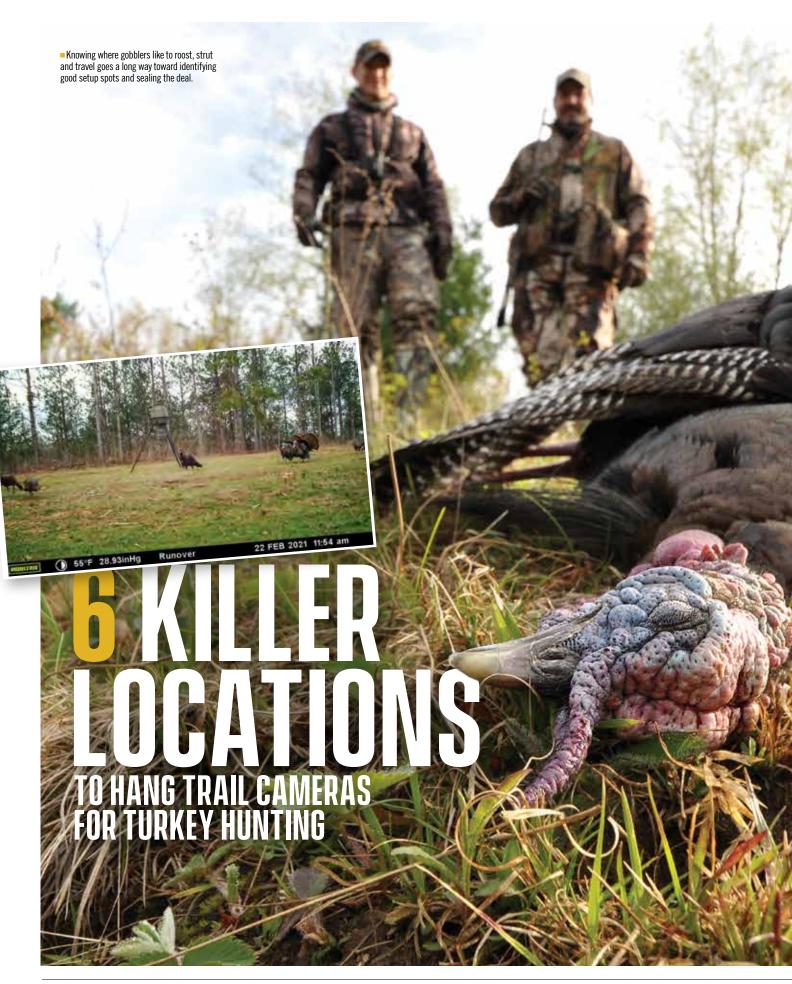
"I was wondering if I should take my own advice or whether that was a situation where we have a little growing season left to where we can do something," Say said. "I did and made the right decision. I went back into those nine plots, and they were dirt still. Nothing had grown because it hadn't rained in six weeks. But we had rain in the forecast, so I took a disc. harrow, roughed that dirt up and seeded with No-Plow from Whitetail Institute. We got rain the next couple of days, and I ended up with phenomenal food plots."

So if your food plots fail and a redo is required, use Say's last-option saves to turn plot failure into prosperity. Your deer herd — and season — might depend on it.





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Most deer hunters use trail cameras, but have you tried them for turkey hunting? If not, you might be missing the action and some insightful information.

# by Darron McDougal

ve taken dozens of gobblers with a bow and dozens with a shotgun the past 20 years. I've also been humbled many times. Along the way, I've learned you cannot know too much about turkeys on your hunting property, particularly if you're a stationary hunter. I've sat in blinds and scratched my head countless times after watching birds avert me after I deployed what I believed was a killer setup.

Not to diminish the effectiveness of calls and decoys — I rarely hunt without them — but nothing replaces being positioned where turkeys want to be. The only way to put yourself in that position is to learn as much as possible about how turkeys use the property you hunt. Where do they roost? Where do they fly down? Where do gobblers strut? What food sources are they frequenting? Are gobblers with hens or alone? For that matter, are there any gobblers on the property? So many questions loom, and if you could do nothing but scout and hunt for turkeys, you could answer them and be in the middle of the action opening morning. Unfortunately, it doesn't always work that way.

Obviously, few turkey hunters have the luxury of spending hours scouting, watching and hunting turkeys. While we're working, eating dinner with our families or sitting in church on Sunday, turkeys are being turkeys. Tons of activity transpires when we aren't watching. That's why placing a trail camera — or several — in the woods makes good sense. If you place cameras at good locations, you'll likely capture enough information to identify some turkey habits that will help you pick the perfect ambush location.

## **GETTING STARTED**

Hanging trail cameras for deer is easy. Deer create trails and follow them. They make scrapes and rubs. Their droppings are easy to see. And signs of their feeding are typically obvious.

Turkeys, on the other hand, are slightly different. Indications of their daily activities are sometimes obvious, but I've hunted a lot of good properties where sign wasn't easily distinguishable. Whether sign is obvious or nonexistent, here are six proven locations at which you should consider hanging trail cameras to capture turkey intel.



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# **FOOD PLOTS**

Regardless of what you planted this season or the previous year, turkeys habitually visit openings in the timber. Typically, these spots hold bugs, and if your plot features clover or another planting desirable to turkeys, all the better. Further, it's no secret that openings often serve as strutting zones for gobblers. Food plots, especially small ones, are excellent places to monitor turkey activity with trail cameras.

# LOGGING ROADS AND POWER LINE RIGHT-OF-WAYS

Turkeys are suckers for thoroughfares. Unless spooked, they'll naturally travel paths of least resistance. Logging roads and power line right-of-ways are the land features turkeys probably travel most. Gobblers also strut up and down them, hoping to attract a hen that steps out of the timber.

Where you set the camera along a logging road or right-of-way can determine how much data you capture. Yes, turkeys might travel the entire road or lane, but they'll commonly use certain stretches more than others. Walk the road or lane and check for scratch marks along both sides. Watch for puddles or mud where tracks will be obvious. Also, note any of the road's special features, such as a fork. A trail camera positioned at a fork lets you cover turkeys coming from three directions.

Also, don't overlook straight stretches, especially where the road levels out with good visibility at a hilltop. I can't count how many such locations I've found that were littered with turkey sign.

# RIDGES

at common areas, such as

where a logging road meets

the field.

Turkeys often roost on ridges or the side hills be-

neath them. Ridges provide good visibility at flydown, which lets turkeys identify danger and do a roll call after flydown before moving to a feeding area. The side hills below can provide seclusion from fierce winds for roosted turkeys.

If your hunting property has ridges that feature suitable roosting trees, expect turkey activity to occur there. It's risky to hang a camera at such spots early in the morning or late in the evening. Do it at midday if you suspect turkeys are roosting there. You might listen for gobbling from a distance before going in, or go in at midday and quickly check for droppings or scratch marks in the leaves. Hang your camera where sign is most prevalent.

# FEEDING AREAS

Turkey expert Brian Lovett once said, "A turkey will eat practically about anything it can fit into its mouth." Further, turkeys feed on and off all day. That means you must be on the lookout for turkey treats if you want to peg a killer trail camera location. From crickets to cornfields, turkeys feed on various items at various locations. And because they



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feed throughout the day, it's important to hang a trail camera at a feeding area or two so you can learn peak feeding times, which will help you know when to hunt that location.

A good way to determine where turkeys are feeding is to glass fields from the road or at least drive by them. If you haven't seen turkeys in likely fields, it doesn't mean they aren't using them. I've seen turkeys appear and disappear in fields in a matter of seconds. I'd suggest a midday stroll to look for droppings and other clues, such as tracks, strutting marks, scratch marks and dust bowls. If you find those, hang a trail camera so you can learn more.

Sometimes, feeding areas aren't as obvious as cornfields. If critters didn't gobble up all of the acorns that dropped the previous fall, turkeys will likely eat them before they begin to compost. Turkey sign isn't difficult to distinguish in wooded areas. If turkeys are feeding in the timber, you'll see their scratch marks and can judge the age of the sign based on whether the disrupted dirt is wet or dry.

# WATER SOURCES

Turkeys get water from dew-coated green shoots, but likely not enough. That's why small ponds, creeks, rivers or lakes can be attractive to birds, especially in drier climates such as Texas or Wyoming. The smaller the water source, the easier it is to monitor with a trail camera. It's not the first location I'd pick, but if you have multiple cameras, it's a good option.

# **FIELD ENTRIES AND EXITS**

Turkeys often enter and exit fields at common areas, such as where a logging road in the timber meets a field. Another is where understory is sparse, allowing turkeys a good view of the field — think danger or hens — before they enter it. In areas with hilly topography, it might be where a wooded ridge top meets the field, as turkeys don't often enter fields in low spots. Field entries and exits can be great places to hang cameras, so don't overlook them.

# **CREDIT ROLL**

Although trail camera data can be incredibly helpful for turkey hunting, re-

member that trail camera images and videos are historic information, and there are no guarantees a gobbler will walk by the camera again at the same time tomorrow. Likewise, if you didn't capture a gobbler on camera yesterday, it doesn't mean today's hunt will automatically be a bust. A turkey's pea-sized brain isn't always predictable.

Bottom line: Don't use trail camera info to make poor hunting decisions. In most cases, trail camera info is very useful and can help you peg a deadly ambush location, especially if you have little time to scout before your hunt. But relying on it too much can make you miss good opportunities. A camera covering a small swatch of real estate in no way captures everything that transpires on your hunting property.

To that end, if you're ready to give trail cameras a go for turkeys, the locations I've outlined here are likely places to hang them for good results.





This annual blend provides deer with many obvious – and some lesser-known — advantages. ■ by Jon Cooner IMPERIAL WHITETAIL POWERPLANT: BENEFITS



mperial Whitetail PowerPlant is a spring and summer annual mix designed to provide whitetails with massive amounts of highly palatable, high-protein forage when they need

PowerPlant is so good at fulfilling that role it's the only strictly spring/summer annual for deer Whitetail Institute offers. But don't overlook the additional benefits PowerPlant can provide beyond summer and into fall.

# **SEASONAL BENEFITS** (SPRING AND SUMMER)

PowerPlant provides abundant protein, which is vitally important for deer during spring and summer. Mother Nature generally provides enough protein for deer to survive, grow antlers and reproduce, but she doesn't produce enough for deer to maximize the health, body weight and antler size their genetic blueprints will allow. PowerPlant is designed to help make up that shortfall.

Protein is extremely important for many physical processes in deer during spring and summer, including fawn growth and the production of milk, which is extremely high in protein. The most cited example is antler growth in bucks, starting in early spring with the formation of the velvet antler, which is about 80 percent protein. Later, bucks deposit minerals on that velvet matrix, hardening it until it's solid. Protein is important throughout the antler growing process, especially to maximize the size of the velvet antler.

Folks debate exactly how much protein deer need during spring and summer, but it's generally recognized that bucks require about 16 percent protein when building antlers, does need about 18 percent when they're lactating, and fawns require up to 20 percent, some of which they get from their mothers' milk. Those are the optimum levels amounts required for deer to reach their genetic potential.

Unfortunately, natural forages in spring and summer can be comparatively low in protein, and their availability to deer decreases sharply as August approaches in most areas. Commercial plantings developed for grazing by cattle are often not much better in terms of protein content. Even in areas with low protein levels and

lack of availability, deer can survive, but a manager who wants to push deer as far as their genetic blueprints allow must supplement the protein shortfall. PowerPlant is designed to do that.

PowerPlant is also highly palatable and can keep up with consistent grazing pressure. The palatability requirement is because of the nature of the small-ruminant digestive system. Unlike large ruminants such as cattle, which are grazers and can use even tough, stemmy forages, whitetails are concentrate selectors, and they seek the most easily digestible, nutrient-dense plants and portions.

The forage soybeans included in Power-Plant are an excellent example of its high palatability and graze-tolerant characteristics. Although agricultural soybean varieties offer high protein, they quickly become stemmy and unpalatable to deer as they mature and the amount of lignin in their stems increases. They also don't tolerate grazing well, often being wiped out quickly or dying when bitten off by deer. Those are not necessarily flaws but products of the purpose for which they were engineered: optimum bean production, not high-protein grazing sources. In contrast, the forage varieties of beans in Power Plant grow as highly succulent vines. They're also much more graze-tolerant than agricultural beans. When established, they can continue to grow after being bitten off by deer.

PowerPlant also includes vining peas and structural plants for the vining forage beans and peas to climb and maximize production instead of growing along the ground. Those include sunflowers and sunn hemp, a legume that does double-duty as a tender, regenerating forage and structural lattice. As a result, Power Plant grows to a thick mass of high-protein forage, in which deer will bed and feed, and in which turkeys often nest and raise their poults.

# TRANSITIONAL BENEFITS (FALL AND WINTER)

The seasonal change from summer to fall isn't immediate but happens during a period of weeks or months, depending on the region. PowerPlant continues to produce until it's subjected to a hard freeze, at which point it dies. That might happen in September in the far North but not until December in the deep South. (I'll refer to the period between summer and the first frost as early fall and the period after frosts as late fall.)

Early fall: This strategy assumes that your PowerPlant plots are at least as large as the minimum Whitetail Institute recommends for PowerPlant to reduce the chance of early overgrazing.

Areas of high deer density: Plant a minimum of 1.5 acres with 50 pounds of PowerPlant.

Areas of low to medium deer density: Plant at least ¾ to 1 acre with 25 pounds of PowerPlant.

Most areas have a common prevailing wind direction during hunting season. In central Alabama, for example, the wind usually blows out of the northwest during the season. After you determine your prevailing wind direction, locate a permanent stand at the downwind corner or edge of a PowerPlant plot. Then, three to four weeks before your anticipated fall planting date, mow lanes through the PowerPlant, and wait a few weeks for the clippings to dry. When your fall planting dates arrive, disk or till the mowed Pow-



erPlant clippings into the lanes. Then plant the

lanes in an Imperial Whitetail annual, such as Pure Attraction, Beets & Greens, Winter-Greens or No-Plow.

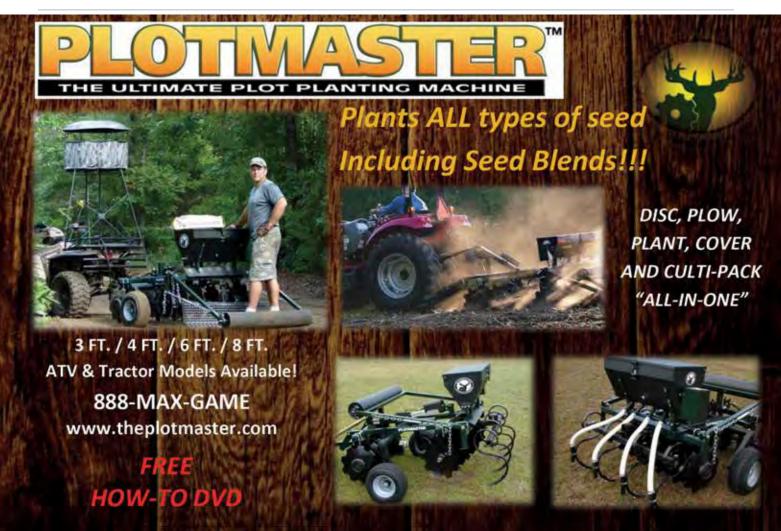
You want enough lane area to keep the plot attracting deer even after frosts but not so much that you destroy the feeling of safety deer have in the tall, thick PowerPlant. If you do it right, you'll likely find that deer continue to bed in the PowerPlant and step in and out of the lanes throughout the day. The lanes are skinny and provide a feeling of safety for deer.

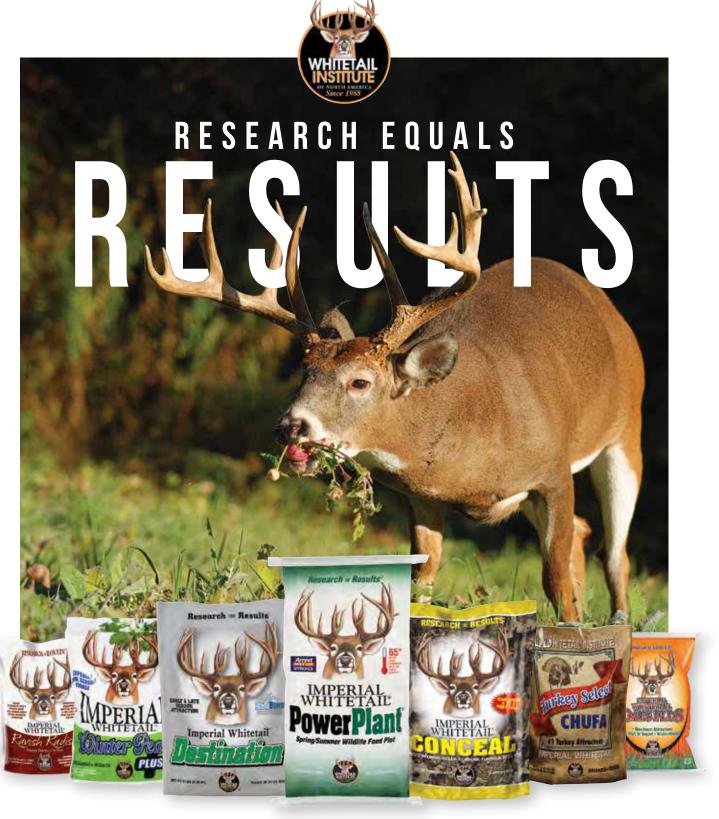
Late fall and winter: After frosts arrive,

PowerPlant will die, but it doesn't disappear. In-

stead it continues to stand for another month or two. Deer will also eat any residual beans and peas, but the primary benefit of post-frost PowerPlant is to act as cover. Combined with that, fall annuals planted in the lanes will continue to make the plot an even more attractive forage source that deer should feel safer using during daylight.

For information on PowerPlant, visit whitetailinstitute.com, or call (800) 688-3030.





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WHITETAIL INSTITUTE





he Whitetail Institute publishes step-by-step instructions for maintaining its perennial food plot stands. Those instructions have been carefully designed to help maximize the attractiveness, longevity and nutritional quality of plantings. That's especially true with the weed control steps. Don't give in to the temptation to skip them.

It's not unusual to see folks online ask whether controlling weeds in perennial food plots is really necessary. Someone invariably replies that there's really no reason to control weeds in perennial stands and, in support, offers the contentions that a food plot doesn't have to look perfect to work, and that deer eat weeds, too. To some degree, each is true. However, they miss the reasons why weed control in perennial stands is so important.

Bottom line: It's counterproductive to have weeds in your food plot. We're not talking about achieving perfection with a food plot that has zero weeds. That's not possible in most situations. No matter how well you prepare and plant your food plot, you'll almost always have some weeds at some point. Weed control is a never-ending war. Your goal is to win the battles and, by doing so, maximize the quality and longevity of the stand.

Just because deer eat weeds doesn't mean that we should allow weeds to grow unchecked in food plots. Doing so is counterproductive to the lifespan and quality of the stand. Whitetail Institute perennials are designed to last three to five years or more from one planting. Just as you have to change the oil in your car to maximize its life, you must do some spring and summer maintenance on perennial stands to help them last as long as they should. Many weeds outcompete food plot plantings — especially those that produce seed, which most do— and they will substantially shorten the intended lifespan of perennial food plots if not controlled.



Also, remember the nutritional reason why we plant food plots: not to completely feed deer but to supplement the nutrition they get from Mother Nature. In real-world situations, deer use food plots as only one part of their diets, and they continue to feed on natural vegetation, especially when that vegetation is still young and highly palatable. Deer have plenty of access to weeds and other naturally occurring food outside of food plots. The critical consideration is that the amount of surface area and root space in a food plot is limited, and you'll need to control weeds if you want to put it to the best use.

Root space is a zero-sum game, which means multiple competitors vie for something of a fixed quantity. Because the amount of the commodity being competed for never increases, as one competitor acquires more of it, the other gets less. In our case, that's root space, and the competitors are high-quality food plot plants versus native weeds and grasses. The more weeds you have in your food plot, the fewer and smaller forage plants you have. That's a crucial understanding. Weeds shading forages and competing for soil moisture account for significant forage losses from competition. That can fit into the zero-sum line of thought, particularly in a dry year.

As mentioned, most native vegetation is much less nutritious and palatable than Whitetail Institute perennials. The more root space that's occupied by your forage planting, the greater the attraction and nutritional benefit your plot will offer. And isn't that the point? It makes little sense to put in the time and effort to properly prepare and plant a seedbed and then allow the planting to be overtaken by weeds.

Weed control starts during seedbed preparation. The planting instructions for each Whitetail Institute product include weed control steps that should be performed even before planting. Many folks don't realize that all the seedbed preparation and planting steps are important to weed control efforts.

Soil testing to determine soil pH and fertility, and properly liming and fertilizing, are necessary to ensure a planting can grow quickly and be as thick and lush as possible. Consider how import-

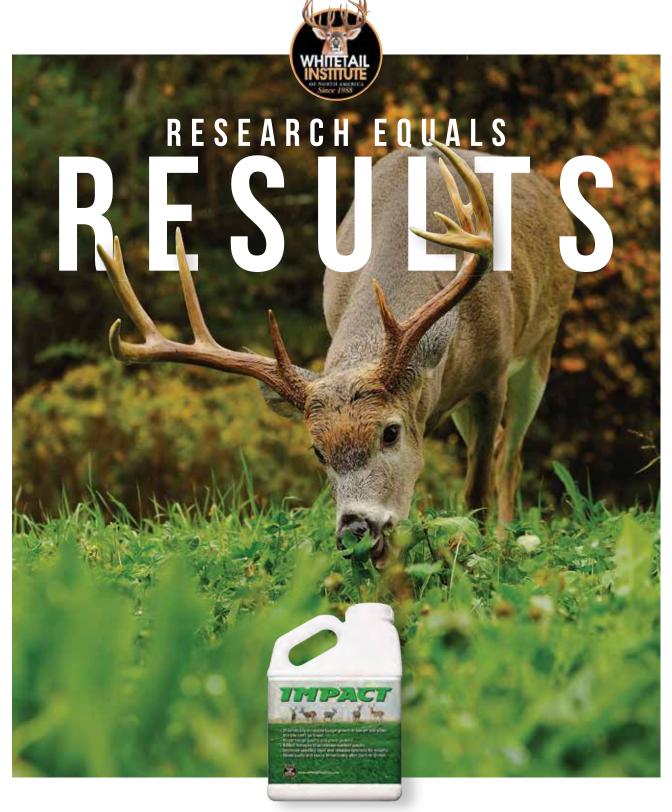
ant that is from a weed control perspective. As the Whitetail Institute agronomist Dr. Carroll Johnson says, "Most weeds are opportunists. They tend to establish in areas of food plots where the crop is thin. If you leave bare ground in your food plot, you'll likely find that's where weeds will gain a foothold."

Tillage also helps with weed control when performed properly. Most ground holds millions of dormant weed seeds. Tillage helps get the seedbed as stale that is, free of competing weeds and dormant weed seeds — as possible so weed competition after planting is minimized. If you plan to plant a food plot in fallow ground, consider doing so in fall, and use the preceding spring and summer to control weeds. Specifically, till or disk the soil several times at two-week intervals during summer. That will bring dormant weed seeds to the surface, where they will germinate and then be killed when you till again two weeks later. In especially weedy ground, it can also help to stop tillage a few weeks earlier, allow weeds and grass to resume growing, and then spray a Roundup-type glyphosate herbicide before planting.

Each Whitetail Institute perennial also comes with a set of maintenance instructions, which should be performed each spring and summer. This includes periodic mowing to prevent upright annual weeds from producing viable seed. All Whitetail Institute perennials can also be sprayed with Arrest MAX to control grasses. You can use Whitetail Institute's Slay herbicide to control many sedges and broadleaf weeds in established stands of Imperial Whitetail Clover and other clovers or alfalfa.

We want our food plots to look as good as possible. The reasons, though, are much deeper than mere aesthetics. When lush, vigorously growing Whitetail Institute perennials occupy more of your food plot's surface and root space, you can be assured you have maximized the attractiveness, longevity and nutritional content of the stand.





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**JH:** How do I decrease the risk of failed food plots?

**Dr. Johnson:** I'm a very strong proponent of lessening the risk of losing a food plot. The best way to lessen risk is to diversify the plantings.

Perennials are worthy goals to have, but there are many cases where annuals provide the customer an opportunity to correct acidic soil, and they also provide opportunity to correct serious nutritional deficiencies. So if you have a site, and you have some serious soil-related problems with productivity, including difficult perennial weeds, planting annuals early in the food plot sequence for a couple of years will allow the manager to correct those problems. Then, when you have those problems resolved, systematically incorporate perennials.

**JH:** Should I have one big food plot or several smaller ones?

Dr. Johnson: That depends on the size of the property, how many hunters are on it and how you intend to hunt. From food plot management and hunting points of view, I think it's safe to say that if you have several different food plots, that total acreage will be better off as compared to the same acreage in one food plot.

**JH:** How can I build up the organic matter in my soil?

**Dr. Johnson:** This is a long-term process, and it takes commitment. This will not happen quickly or even within a year or two. Organic matter comes from decaying plant materials. Always have something growing, and plant cover crops. It's a multi-year commitment to improve the soil health.

**IH:** Should I use herbicides?

Dr. Johnson: Herbicides are critical tools in weed management in any food plot or crop. It's not a stand-alone form of weed control, but it's a big part of it. In food plots, it gets complicated, because herbicide selection in food plots is very limited. You have to approach managing the weeds in a food plot with herbicides being one of high or low? several tools, carefully chosen according to the weeds that are present.

**JH:** How important is comprehensive weed management?

**Dr. Johnson:** Weed management is way more than using herbicides. It's a total concept of a balanced weed management system. Cultural practices promote forage crop growth that can favorably compete

against and suppress weeds. Mechanical weed control is a judicious use of timing and tillage to kill weeds before you plant. (Mowing the tops of weeds is also a form of mechanical weed control.) The third leg of this triad is using herbicides correctly. Within all of that, the one thing in which I see the biggest area of improvement is to monitor the food plots very carefully early in the season and control weeds before they get bigger. That's a time commitment in late spring and early summer. Walk the food plot, see what weeds are there, and be in a position to take corrective actions.

Many times, by mid- to late summer, we're made aware of weedy situations in food plots when few options are left. Had that been brought to our attention two months earlier, those could have been effectively managed with minimal cost. Timely weed control and sound management are important factors for food plots.

**JH:** What are the best ways to remove and prevent weeds?

**Dr. Johnson:** The foundation is do not let weeds produce seed. That's it right there. Annual weeds are going to come from seeds that are produced in previous years. If you have a significant weed problem, managing the weeds is very difficult, and the first thing you have to do is stop weed seed production. That's a yearly priority.

*In regard to perennial weeds, these prop*agate by rootstock that does not die off each year. You have to target the depletion and destruction of those perennating rootstocks. No quick fixes. This is long-term management.

**JH:** How do I do a soil test?

**Dr. Johnson:** A soil test is not a single soil sample from a field. It's a collection of many samples that are blended together from a given field. Then, you submit a part of that for analysis. The reason is because all fields are naturally variable, no matter how they look. This composite sample is the standard technique.

**JH:** What do I do when soil pH is too

**Dr. Johnson:** *The soil is acidic when the* pH is too low. The pH value is a negative exponent, which means that a pH of 5 is 10 times more acidic than a pH of 6. Small changes in the pH value can have big implications on the overall chemical nature

To correct soil acidity, limestone is your best choice. It's the most cost-effective solution, and it chemically reacts in the soil to neutralize soil acidity. There are other liming materials available that are a different chemistry altogether — oxides and hydroxides. They also chemically react to neutralize the soil acidity. Impact, one of Whitetail Institute's new products, is a sprayable oxide that will quickly neutralize soil acidity and provide a short-term benefit.

*If the soil is too alkaline (which is the op*posite of acidity), it's best to bring that to optimum levels with sulfur or sulfur-containing fertilizers. This will create a more acidic condition. To do this right, conduct routine soil testing.

JH: What are some tips on using fertilizer?

Dr. Johnson: Pre-blended fertilizers in different concentrations have nitrogen, phosphorus and potassium. Those are the three numbered [components] in a bag of fertilizer. For example, 16-4-8 is 16 percent nitrogen, 4 percent phosphorus and 8 percent potassium. These blends [combinations] will vary across the country. You buy what's locally available.

The fertilizer you use will depend on what the forage crop needs. When you soil sample and submit that sample to testing at a soil testing laboratory (such as Whitetail Institute's), it will match up the nutrient requirements for the product you're planting with the nutrient amounts in the soil, including pH, and will make a recommendation. That will be based on an amount of fertilizer per acre, or per 1,000 square feet. That helps the food plotter make sense of how to manage their forages for ideal plant nutrition. That's where Whitetail Institute's technical experts can provide guidance in helping new and established food plotters.

**JH:** What are some tips on using lime? Dr. Johnson: Your soil sample test report will also note the amount of limestone that's needed. Acidic soils affect crops in two ways. First, acidic soil will change the availability of desired plant nutrients so they are no longer available to plants. If the soil is really acidic and you put a lot of fertilizer out there, the plants cannot use those nutrients because they're in the wrong chemical form. And so, acidic soils cause crop starvation.

The other way acidic soils affect crop growth is that they change the availability of the naturally occurring element aluminum in the soil, such that it becomes more available when the soil is acidic, and it's available at a level that will poison crop

Limestone will neutralize the acidic soils, raise the pH, prevent aluminum toxicity and allow for significantly greater fertilizer use efficiency. Lime allows you to get more out of your fertilizer dollars.

**JH:** How do I know when to plant?

**Dr. Johnson:** All of our products have planting directions on the bags, which includes times to plant. It's also on the company website. These times of year will vary from one part of the continent to another. That information is important.

These are guidelines (for the best times to plant) to increase the chances for food plot success. There is nothing guaranteed here as to whether it will succeed, because we're all at the mercy of Mother Nature, including rainfall, temperature and other factors. Yet these guidelines for planting are based on sound agricultural knowledge that's science-based. That's why I encourage everybody to study the directions on the seed bag as to when to plant, how to plant and how much seed to sow.

**JH:** What happens if I plant at the for productivity is much lower. wrong depth?

**Dr. Johnson:** *Do not bury the seed too* deep. Most of the products planted in food plots are small-seeded forages, such as alfalfa, chicory, clover and any of the brassicas. Those seeds are very small. It's really easy to unintentionally cover them with too much soil. Deep seed burial is a serious production problem that limits food plot success.

**JH:** How important is good food plot seed?

Dr. Johnson: In my previous career as an agricultural researcher, I spent the majority of that time working on the peanut. We had a technical specialist named Frank McGill. He made the comment that you create your yield potential the minute you put your seed in the ground. In other words, you're establishing the high-water mark for crop productivity.

It's the same way with food plots. You're establishing the potential for high productivity the second you put seed in the soil. If you plant junk seed, varieties that aren't adapted to your area or the wrong product at the wrong time of year, your potential

JH: How do I see more daylight activity in food plots?

Dr. Johnson: Speaking on opinion rather than facts, screening materials are good for helping deer access the food plot and egress safely and unnoticed. It gives them a degree of comfort and makes them more receptive to entering the open during daylight. I think that's important.

Whitetail Institute sells products that will accomplish that: Conceal, which is a mixture of tall sorghums; Sun Hemp, which is a tall legume; and PowerPlant, which is a high-protein, warm-season annual. Plant in areas and shapes that guide deer movement in desired directions and provide deer with cover and seclusion as they come and go. This also hides what's going on in the food plot from prying eyes, such as trespassers and poachers.

The other thing to think about is to try to not be in and around the food plot unless you have a reason to be there — hunting or food plot maintenance. Hang around too much and deer will get suspicious of the human activity.



IMPERIAL WHITETAIL CONCEAL:

# STAY HIDDEN, CREATE COVER

This spring annual solves concealment problems and helps deer feel comfortable on your land.

by Jon Cooner

f you've wished for something that would quickly establish thick cover where you need it, look to Imperial Whitetail Conceal. It's designed to create bedding areas for deer and concealment for deer and hunter travel, where you and the deer need it. And you can use it annually or for a temporary fix while permanent screening plants establish.

## GENERAL DESCRIPTION

Conceal is an annual designed to be planted in spring. Its components have been selected for foliage thickness and varying growth heights so the stand will grow into a thick wall of foliage up to 9 feet tall.

Most of us study maps of the properties we hunt and scout to improve our chances. Basically, we're looking for ways to stack the odds in our favor as much as possible before hunting season arrives. Locating deer bedding areas, food sources and travel routes is always paramount. It's also crucial to know how to get in and out of stands without spooking deer. But even the best hunting setups usually have a glitch or two, and it's usually in one of two areas: making sure deer feel safe so they'll stay in the area, or ensuring that hunters can move



Conceal lets you create funnels and bedding areas for deer and allows you to travel to and from stands without being seen.

to and from stands and hunt without being detected. The drawbacks a location might feature are almost limitless. There might be little cover

near a potential food plot for deer to bed in or use as a staging area. Cover for deer to travel from the woods to a food plot might also be inadequate, or the only approach for hunters might be across open ground. Such problems can make some food plot sites less productive and even unhuntable, especially if there's no way for hunters to access them without being detected. Conceal is a superb tool for eliminating a broad range of concealment problems.

Here are some ways you might use Conceal. These are just examples, and the possible applications for Conceal are limited only by your imagination.

- Create bedding areas almost anywhere.
- · Connect two heads of woods for deer travel (create a funnel).
  - Create concealment for hunter travel.
- Shield food plots from visibility from roads and neighbors.

# SUGGESTED STAND DIMENSIONS FOR CONCEAL

Whitetail Institute suggests planting

Conceal at least 15 to 35 feet wide as a general rule. One bag of Conceal will plant 1/4 acre, which is about 35 feet wide by 300 feet long.

If you're planting Conceal to funnel deer and have sufficient room, consider planting it in wider strips of about 90 to 100 feet wide. That will give you a funnel that's wide enough so you can hang stands on all the corners and always be able to hunt it based on wind direction. This is a great setup for bow season and the rut.

## FINAL THOUGHTS

One of the components in Conceal is a legume and fixes nitrogen, improving soil quality. When snow arrives, some of your Conceal stand will bend down. It depends on how much snow falls, but in most cases, Conceal should stand up through deer season and continue to provide good cover thereafter.

Conceal is designed for spring planting only. Medium-heavy to lighter soils with a pH of 6.5 to 7 are optimum. Conceal needs at least six hours of full sunlight per day. For information, go to whitetailinstitute.com, or call (800) 688-3030.





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# ADJUVANTS

What are They, and Why Do We Need Them?

by Joyce Alllison Tredaway, Ph.D.

Agronomist and Weed Scientist

f you have sent a weed question to Whitetail Institute regarding a post-emergence spray, you will immediately remember someone telling you to include Sure-Fire Crop Oil. Sure-Fire Crop Oil is an example of an adjuvant and is necessary for your post-emergence herbicide application to work properly. But that prompts the million-dollar question: What is an adjuvant, and are they all equal? If you read the Internet, you might think a liquid dishwashing detergent is equivalent to Sure-Fire Crop Oil, so hopefully this will help to decipher the differences.

Adjuvants encompass many products, including surfactants, penetrators, spreaders/stickers, crop oil concentrates, methylated seed oils, water conditioning agents and others. This leads to confusion when someone recommends that you include an adjuvant. Let's define an adjuvant and distinguish between adjuvants used with Whitetail Institute products.

The Weed Science Society of America defines an adjuvant as "any substance in a herbicide formulation or added to the spray tank to modify herbicidal activity or application characteristics." The most common adjuvants are surfactants, crop oil concentrates and methylated seed oil. These differ by the active ingredients that comprise the adjuvant.

# TYPES OF ADJUVANTS

Surfactant (surface-active ingredient): These reduce surface tension between the spray droplets and the leaf surface, which provides greater coverage. Hydrophilic/lipophilic balance is a measurement frequently used to describe surfactants. HLB describes the ability of the surfactant to associate with hydrophilic and lipophilic compounds. Surfactants with a high HLB balance associate better with water-soluble compounds than

with oil-soluble compounds. Most surfactants used with post-emergence herbicides have HLB values of 12 or greater. Surfactants have different percentages of active ingredients, and most labels state that the surfactant should be at least 80 percent active.

Crop oil concentrates: These are a combination of a surfactant and a non-phytotoxic oil. Most COCs contain 15 to 20 percent emulsifier. COCs are frequently classified by the type of oil used to manufacture them — a petroleum-based oil or a modified vegetable oil. These act as a penetrant, sticker and spreader. Crop oil concentrates have varying percentages of active ingredients, and most labels state that a crop oil should be at least 90 percent active.

Methylated seed oil: Methylated seed oils are manufactured with a vegetable-based oil that has been chemically altered by attaching methanol units to the oil. The attachment of the methanol to the oil alters the HLB of the oil to an optimum level, making it act as a penetrant and spreader. Some herbicide labels require a methylated seed oil to activate the herbicide.

## **OUESTIONS ON ADJUVANTS**

It's important to remember that an adjuvant is required for all post-emergence herbicide applications. Therefore, if you're applying Slay or Arrest Max, you must add an adjuvant for the herbicide(s) to work properly.

Why is an adjuvant necessary? Leaves have a thick, waxy cuticle (outside covering) that must be penetrated for a herbicide to enter. The adjuvant breaks down the waxy cuticle so the herbicide can enter the plant leaves. Adjuvants also decrease the surface tension in the spray droplets, which means they're more likely to be retained on the leaf surface. The data from Table 1 illustrates





the effects of surfactants on surface tension and how it affects herbicides with regard to weed control. If no surfactant is used, you get little weed control because of the lack of surface tension the herbicide has on the plant leaf. When you increase the amount of surfactant, it increases the surface tension, so the herbicide adheres to the plant leaf for better absorption.

When do you use an adjuvant? For all post-emergence herbicide applications. Pre-emergence applications do not require an adjuvant because you're spraying the soil and have no need for leaf penetration. Post-emergence applications require an adjuvant to break through the leaf cuticle for the herbicide to enter the leaf.

What happens if you don't include an adjuvant with a post-emergence application? Little to no herbicide activity will occur. The herbicide cannot enter the plant without breaking the leaf cuticle barrier, so the post-emergence application will not work.

Are there times when one surfactant is more beneficial than another? Yes,

depending on environmental conditions, it might be necessary to use a crop oil rather than a surfactant, and vice versa. For example, hot, dry weather thickens the plant cuticle, which reduces herbicide absorption. During these conditions, the higher rates of a COC or surfactant would be beneficial. During cool, wet conditions, the cuticle often is thinner and less of a barrier to absorption. A surfactant might be more appropriate than a COC during these conditions to reduce the risk of crop injury.

Can I substitute dishwashing liquid as an adjuvant? This is a common question Whitetail Institute consultants often receive. Basically, liquid dishwashing detergent contains nonionic and anionic surfactants, ethyl alcohol, water, stabilizing agents, colorants (if colored), perfume and a protease enzyme. Just as dishwashing detergent was designed to cut grease, agricultural adjuvants were designed for a specific purpose: to penetrate the waxy layer of the plant cuticle and increase the surface tension of the herbicide. The nonionic

and anionic surfactants in dishwashing detergent can result in antagonism, which is when one additive causes the other additive to not work as well. That can occur depending on the concentration and can result in reduction of the herbicide efficacy or crop injury.

In addition, dishwashing detergents are not labeled for use, so you will not be protected if injury occurs or the herbicide does not perform. Using a dishwashing detergent as an adjuvant might also leave a residue on the leaf surface, which can inhibit further foliar uptake if a second herbicide application is needed.

Why do we recommend Sure-Fire Crop Oil with ArrestMax and Slay applications? Sure-Fire components include a methylated seed oil and emulsifiers that improve mixing. Research has shown that these emulsifiers increase the absorption by roots and shoots compared to other adjuvants. In layman's terms, it means that more of the herbicide is absorbed into the root and leaves, so the herbicide will be translocated throughout the plant. That results



in faster absorption of the herbicide tions. Ensuring that you use the approand better overall herbicide activity. priate adjuvant at the correct rate can

When Slay is used with a nonionic surfactant, herbicide activity has been shown to be reduced. Research from Pennsylvania State University reported giant foxtail control was 78 percent when Slay was applied with a nonionic surfactant. However, when applied with a crop-oil concentrate, giant foxtail was controlled 95 percent. (See Table 2).

In addition, research from North Dakota State University also noted the same trend when using Slay and various adjuvants with broadleaf weeds. Fresh weight reductions of kochia, common lambsquarters and redroot pigweed were increased when using a methylated seed oil over a nonionic surfactant with Slay (See Table 3). Those data confirm that a methylated crop oil is the superior adjuvant for herbicide activity with Slay applications.

## CONCLUSION

Choosing the correct adjuvant can be confusing, but always include an adjuvant in your post-emergence applications. Ensuring that you use the appropriate adjuvant at the correct rate can make the difference between failure and success in your post-emergence her-

SURFACE TENSION	SURFACTANT CONCENTRATION	WEED CONTROL
	0%	45%
	0.12%	60%
	0.25%	85%
	0.50%	98%

**Table 1. This shows the e**ffects of surfactants on surface tension and how that affects herbicides with regard to weed control.

bicide applications. Adjuvants are not created alike. They are made for specific purposes to aid in your post-emergence weed control.



	% CONTROL	
Adjuvant		
Slay plus NIS	78	
Slay plus COC	95	

**Table 2.** Here's a comparison of nonionic surfactants and crop oil concentrates from broadleaf control with imazethapyr (Slay).

	% FRESH WEIGHT REDUCTION		
HERBICIDE ADJUVANT	KOCHIA	COMMON LAMBSQUARTERS	REDROOT PIGWEED
None	15	41	58
NIS at 15% v/v	82	67	79
Crop Oil Concentrate	31	51	72
Methylated Seed Oil	82	65	86

**Table 3.** Here's a comparison of adjuvants for fresh-weight reduction of kochia, common lambsquarters and redroot pigweed from imazethapyr (Slay).

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WHITETAIL INSTITUTE SOIL TESTING:

# NOW QUIC<u>KER</u> BETTER

Get fast, specific recommendations to optimize your food plots and save money.

by Jon Cooner

hitetail Institute has made laboratory soil testing faster and easier by adding a download option so you can get kits immediately. Further, it offers a high-quality soil test probe that makes collecting soil samples a breeze.

Soil pH and fertility are among the most important factors you can control to ensure food plot success. They can mean the difference between the best food plot possible and failure, so they should not be left to chance. Only a laboratory soil test can provide accurate readings about soil pH and fertility and make precise recommendations on lime and fertilizer, which ensures your food plot offers an optimum growing environment and that you save money by eliminating wasted lime and fertilizer expenses.

It makes sense to use a soil test kit that sends a sample to a qualified lab for analysis. Most cheap probe and slurry testers are inaccurate, and because soils differ in capacities to hold lime and fertilizer, such tests can offer only generalized recommendations. Only a qualified soil testing lab can accurately analyze soil to determine the exact soil pH and fertility and provide you with precise lime and fer-



tilizer recommendations for the crop you'll be planting.

You might ask, "Can't any qualified soil testing lab do that?" Sure. Any qualified

lab can accurately analyze your soil. The differences are Whitetail Institute's report and support. The Whitetail Institute lab report is designed for food plotters instead of commercial farmers and is much easier to understand. When possible, the Whitetail Institute report even provides recommendations of alternative bagged-fertilizer combinations you can look for locally. The Whitetail Institute lab also provides fertilizer and lime recommendations based on specific WINA seed products, and that makes the service much easier for customers to use. The Whitetail Institute kit can be used to test soil for planting or maintenance of any Whitetail Institute product (check the block) or any other crop (write on the form). Whitetail Institute also backs up its soil testing service with its team of agronomists and consultants, who are ready to help answer any questions you have.

You can purchase the Whitetail Institute soil test kit in its original form at many retailers and directly from White-

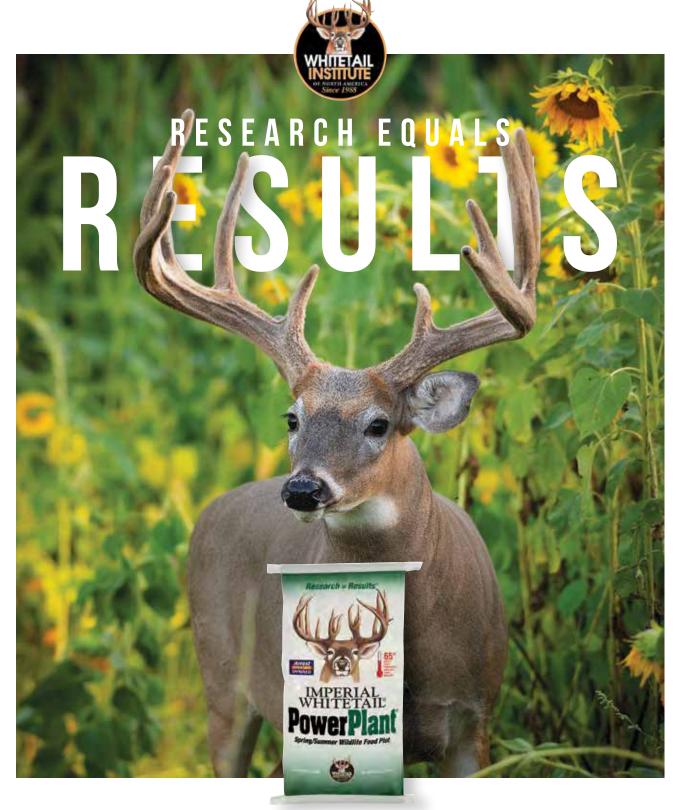
Whitetail Institute's new downloadable soil test kit eliminates mailing time, letting you receive results pouch for your soil sample, a simple instruction sheet and a label with the lab's address for returning the

completed kit to Whitetail Institute's lab. The laboratory customarily provides extremely fast turnaround — usually within 24 hours after receiving a completed kit. The additional new downloadable form lets you get your soil tested quicker by eliminating mailing time.

As the instruction form specifies, you should take representative soil plugs across a broad area of the food plot and then combine them to create a representative sample for testing. Whitetail Institute now offers a high-quality soil collection probe to make gathering soil samples easier. The probe is extremely heavy duty, and its welded stainless-steel construction will handle soil collection without shoveling or digging away grass.

To download a Whitetail Institute soil test kit or see the new soil collection probe, go to whitetailinsitute.com/soiltests/. For information, call Whitetail Institute at (800) 688-3030.





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losing the deal on new hunting land is exciting. It creates a deep sense of adventure as you anticipate the goals to be achieved and the joy along the journey.

Unfortunately, many hunters dive into projects at new properties without a logical, focused plan to maximize hunting success and enjoyment. Planning can actually be one of the most fulfilling aspects of a new property investment, and it helps define the ultimate outcome. Carrying out the plan requires time management and perseverance. Resulting hunting success is just the icing on the cake.

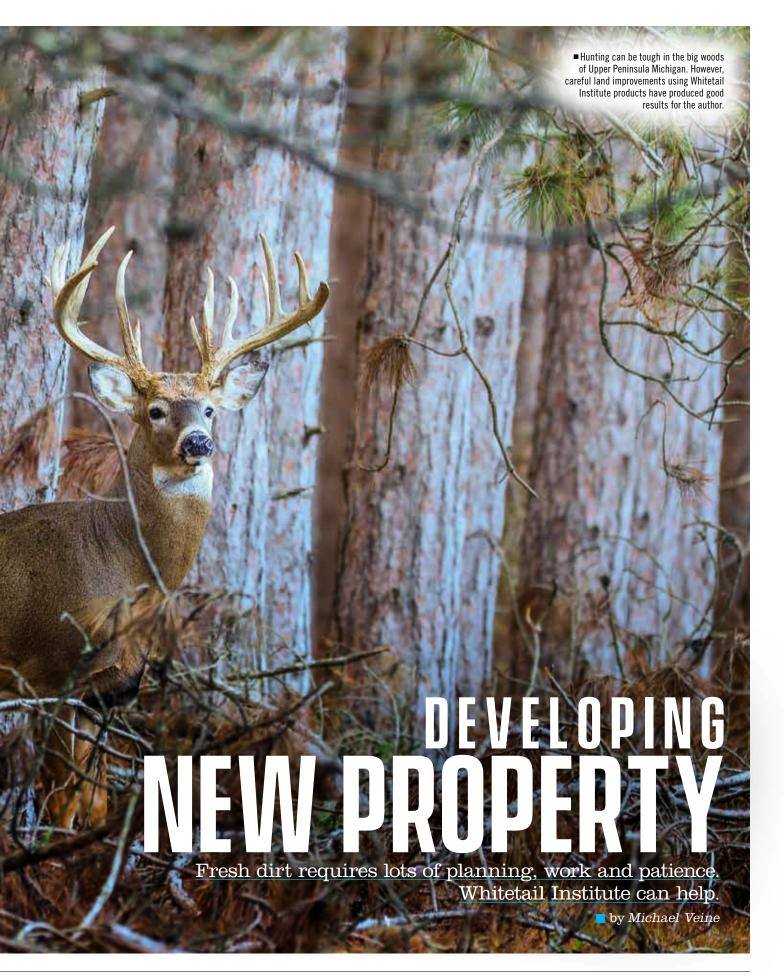
# A NEW PLACE

I don't have enough fingers to count the hunting properties I've owned through the years in Michigan. It's been a lot of trial and error. For years, my preferred hunting area has been the Upper Peninsula, where deer numbers are generally low but the big woods and near-wilderness experience create a challenge on which I thrive. I just bought another 40-acre parcel, which is a brief ATV ride from my hunting cabin and main property. The new 40 is a diamond in the rough, being a simple, unimproved chunk of timber land. And I have many tasks planned.

Perhaps the most important tool in developing a new property is crafting a list of projects. I keep mine on a Word document. It lists each task in chronological order for priority and the planned activity date. It also contains a detailed description of each task, including the estimated number of hours each task will require.

My first job at the new 40 was to remark the boundaries. About half the land was select-cut years ago, and the property lines had been marked by a timber cruiser. I needed to repaint the old tree marks with special fluorescent blue paint designed for such purposes. That type of boundary establishment is common in the U.P., and it costs a fraction of a stake survey, which can run thousands of dollars. Still, I wouldn't build anything too permanent near the boundaries without a legal survey.





Ideally, a perfect property would allow an access trail or road fairly close to the boundaries, where I could at least travel via ATV. From that main boundary road, spurs would poke into the property, leading to food plots and hunting setups. Circumference boundary access trails are great because they discourage neighbors from setting up stands on property lines and also keep disturbances away from the interior, where you can define and maintain sanctuaries. The spur trails ensure that hunters don't walk by stands and spook deer in those areas while trying to access other stands. It compartmentalizes your hunting spots and separates great properties from the rest, design-wise.

I've never seen an ideal property, though, and all of my lands have wetlands, streams, ridges and other terrain features that dictate access and hunting spots. I still set up my property strategy so I minimize impact as much as possible while hunting. My property is actually a deer sanctuary, and I don't enter during summer and fall, other than for food plot work and hunting at strategic spots that minimize impact.

It really pays to thoroughly scout, map and study a property before doing permanent property enhancements. It's also important to know neighboring properties, incorporating that information into the ultimate plan to develop your land. Using aerial imagery, you can easily learn about the surrounding area, and it might give you an excuse to buy that cool drone you've wanted.

Savvy landowners hold off on major property developments until after the first hunting season to get a better feel for the land. The knowledge and insight gained from a year of hunting can pay huge dividends when developing a master plan. That's what I'm doing with my new 40.

# IN THE WORKS

After painting the boundaries, I posted the new 40 along the road (and I use "road" loosely) to let trespassers

know they're not welcome. My interior boundaries are not posted because I hope my new neighbors are respectful. At minimum, you will need reciprocating agreements with neighbors to trail wounded deer across property lines, and it's always great to agree on common deer management goals, although you must establish trust for that to happen. Remember the Golden Rule, and be patient with neighbor relationships.

My first-year plan for the new 40 was to establish one good hunting spot and then evaluate the property during the year before jumping into anything drastic. An old, overgrown logging road runs along my western boundary, so I cleared a stretch to access a small clearing with my ATV, which I used to establish a quick 1/4-acre food plot. I used a chain-saw to clear the plot and trail leading to it, but I also used a telescoping pole pruner to trim high branches where needed. The clearing work took less than two hours during early May, right after the snow melted, so I couldn't yet



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scratched up and devoured by turkeys.

apply herbicides. The soils at the 40 are fairly heavy, with a lot of clay, and also very acidic, with a pH of 5.0, so I applied several bags of lime immediately to start the pH correction process.

During my next trip to deer camp, in June, I sprayed the plot with glyphosate to kill most of the weeds, grass, ferns and brush sprouts that were popping up. I couldn't return until early August. Then, I mowed the plot and trail using my big commercial-grade string trimmer and hit it again with glyphosate. The next day, I spread another dose of lime on the plot by shaking it over the plot directly from bags. I then seeded it, broadcasting Whitetail Oats Plus, with which I had great success the previous year on other small plots. I also had some Imperial Whitetail Clover left from the previous year, so I broadcast that, too. The next step was a heavy application of 20-20-20 fertilizer. I then fashioned a couple of mock scrapes along the edge of the plot to spice things up.

Bears and other critters abound in my

area, and they often destroy portable tree stands or ground blinds left in the woods. So I decided to build a heavy-duty ladder stand near the new food plot— one that can withstand more than 500 pounds, with no straps to be chewed off. With my wife's help, we put up the stand about 10 yards from the western edge of the opening, backing it up to a wet tangle that acts as a natural barrier for deer. The stand will be great with any east winds, which occur periodically in Michigan.

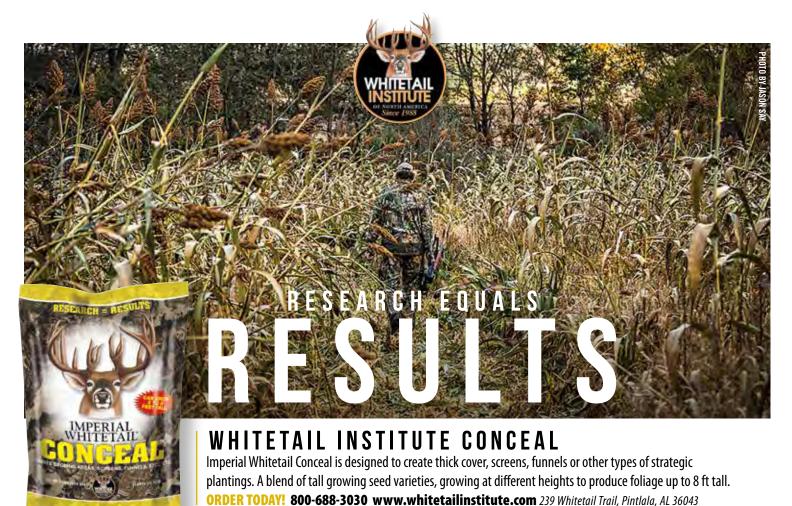
It rained heavily right after I seeded the plot and continued to stay wet for the weeks before I returned in mid-September, when I conduct annual bird hunts. The new plot had exploded with lush green forage and was already getting hammered by deer. In fact, all of my food plots were about as lush as I've seen them.

I installed a trail camera near the plot and left the area alone until I climbed into the ladder stand for my first hunt on the new 40, which occurred a few days before I wrote this article. I had trail-cam images of several nice bucks at the spot, which was encouraging. What shocked me, though, was the number of deer I saw that evening. Overall, the average deer density in my hunting area is about five to 10 deer per square mile, but that evening, I saw more than 10 deer, including one dandy buck, which stayed just out of range. It was a fun hunt with lots of action.

## **WORK IS NEVER DONE**

Next year, I'll likely add more ATV trails to the new 40. If I continue opening up the old logging road, I'll have to traverse a couple of wet spots, which will require me to lay logs over the crossings or rent a mini-excavator to build the trail, running small culverts where needed. It will take time, money and work, but eventually, I'll develop the new 40 into another deer hunting utopia that I hope to enjoy for many years.





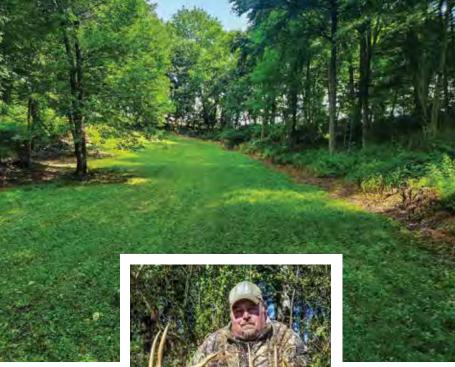
# CLOVER EQUALS SUCCESS

CRAIG LEMON NEW JERSEY

■ I began leasing a 450-acre farm in northwestern New Jersey five years ago for deer, bear and turkey hunting. New Jersey is the most densely populated state in the country, making hunting very challenging.

With deer hunting season running almost six months, and liberal bag limits of five antlered deer and unlimited antlerless deer, growing bucks to 3.5 to 4.5 years old can be difficult. Further, much of the farm I lease is planted with soybeans, corn, winter wheat and alfalfa, with very little woods, making it even tougher for me. The land is loaded with deer until the bucks shed their velvet and the farmers begin harvesting crops.

To boost my odds of holding deer on the farm, in spring of the first year, with the farmer's help, we cleared some ground and did a couple of soil samples, receiving a quick turnaround with results from the Whitetail Institute lab. Then, using my quad and an ancient spring-tooth harrow the farmer had, I ripped up the top few inches of soil, applied the recommended lime and fertilizer, and planted two 1/4-acre Imperial Whitetail Clover plots in small wooded areas. By late summer, the plots were growing nicely, and trail cams showed they were full of deer. There seemed to be more deer in the clo-



Craig Lemon has taken several nice bucks

from his New Jersey lease, where he uses several

Whitetail Institute products.

ver than in the young soybean fields adjacent to them, which made the farmers and me happy.

New Jersey's bow season begins in ear-September, and the first couple of hunts around those plots were amazing, as bachelor groups of bucks were sparring and feeding right un-

der my tree stand. I harvested three nice bucks, a B&C bear and a couple of spring gobblers around those plots the first year.

Since then, I have really enjoyed the art of food plotting. It's become a passion almost as strong as hunting. I have consulted with the Whitetail Institute techs a couple of times on the phone and always appreciate their information. I mow a couple of times a year and follow up by spraying Arrest Max and Slay for weed control. I found this past season that by hitting the plots with lime and fertilizer early in fall, they really took off at the right time for hunting. Each year, I have added a couple of annual plots of Ambush, Beets & Greens, Tall Tine Tubers and Pure Attraction. They have grown

well for me, and the deer use them, but on this farm it seems that Whitetail Clover rules. Always enjoy catching the 91-yearold farm owner on cam crawling around and digging up turnips for his Thanksgiving dinner. I plan to continue working with the annual plots to find the right

combination with my soil conditions and area hunting pressure.

I just finished another great season, harvesting a couple of nice deer and a bear, with some good prospects for next year. And I just received an order of Whitetail Clover, and with the heavy snowpack in the Northeast finally melting, I will be frost seeding and freshening up minerals, with liming just around the corner. Maybe I'll get lucky and pick up a few sheds while I'm out there.

Whitetail Institute products and food plotting have helped me get a leg up on the competition, and I'm sure the local deer have benefitted greatly.





■ The biggest thing we noticed since using Whitetail Institute products is we're seeing bigger deer, specifically bucks, and amazingly symmetrical antlers. The deer prefer clover and seem to gravitate to that crop. They also love Chic Magnet. Whitetail Institute clover has produced significant results on our property.

We love deer hunting and being on the family farm. We own 80 acres that was originally 100 percent woods with no openings or clearings. My dad hired a local farmer, who brought in a bulldozer and created three food plots. Two of the food plots are 100 percent Whitetail Institute clover. The third food plot is our largest, with a mix of multiple Whitetail Institute seeds. Every year, we do a soil test and add the appropriate amount of lime and fertilizer. And we spray all the food plots with Slay and Arrest Max and add the Whitetail Institute Sure Fire Crop Oil to the mixture.

The clover was 4 years old and was really looking good for the 2020 deer season. On opening day, I hunted in the first food plot we built, next to a creek. I was blessed to have my youngest son with me in the stand. We had built a tree stand and put a blind on the platform in the tree. We had created a trail through the woods to enter the blind from the back without contaminating the food plot. At 7 a.m., a beautiful 11-point buck showed up and started feeding on the clover. It was a beautiful broadside shot, and the shot placement was perfect. The buck dropped in his tracks. That was the first deer harvest my youngest son had experienced, and what a hunt it was for him. He's ready to go again. We definitely have a young hunter on our hands. When my oldest son gets his hunting license for the youth hunt next year, he will be the third generation to hunt our property. I have four children, and all of them love the outdoors and are learning to be hunters.

We're managing our farm for trophy deer and are working with the Missouri Department of Conservation on a management program. Since we began using your products in 2016, we have harvested two 11-pointers, a 10-pointer and an 8-pointer. The 11-pointer from the 2020 season is still at the taxidermist. In the future, we intend to add additional food plots. So far, we have five deer stands and will add more. Our next goal is to put an isolated, unhunted food plot in the middle of the property using Whitetail Institute products, which have proven to be simply the best.



■ We have been using Whitetail Institute products for about six years on our hunting property in the Upper Peninsula of Michigan, and we've been seeing improvement every year in the quality and quantity of deer. We went from being happy to see small spikes and forks to having some very nice mature deer. It's also impressive how much better our mature does look.



■ I've been planting PowerPlant and using 30-06 minerals for five years. I've been seeing bigger and more deer on my property each year. Usually, the 3 acres of summer plots last till it gets dry in summer. The 6 acres of fall plots last until spring.

I harvested my best buck on the property in Fall 2019, with a gross score of 157. I will continue to use your products and do soil tests.



■ I've had success with all Whitetail Institute products I've tried. My favorites are Imperial Whitetail Clover and Tall Tine Tubers. In 2019, on my Imperial Whitetail Clover plot, I shot an 8-point buck that scored more than 123 inches and was large enough to make the New York state record book in the archery category. My grandson, Dustin, got his first archery buck the next evening on the same plot. We love that Imperial Whitetail Clover.

A really cool thing happened this year on my Tall Tine Tubers plot and another Imperial Whitetail Clover plot, which border each other. On the evening of Dec. 8, I was sitting over the clover plot when, to my surprise, three albino deer walked out. I was really shocked, for I had not captured any on my trail cameras all year. I noticed they walked right out as if they had been there before. So at midday the next day, I retrieved the SD cards from my cameras. Sure enough, I had four or five pictures of the albino deer feeding on my Tall Tine Tubers plot. One is smaller than the other two, but all appeared to be fawns, which is what I thought when I saw them. By the way, the deer had all but wiped out the clover and the Tall Tine Tuber plots. Last, here's the 12-point buck I got this year, which fed all summer on those food plots. I cannot thank the Whitetail Institute enough.









■ Through the years, we've used various Whitetail Institute products on our farm in northwestern Pennsylvania. The surrounding area gets hunted very hard. Hands down, they have increased the health of our deer and produced some great whitetails.

Before using these products, we would only see small bucks. However, with the use of the products and changes in hunting tactics, the quality of the deer has changed, as the pictures show. Each year we have about 8 acres of food plots planted close to bedding cover and water, making the deer, bears and turkeys stay close by.

This year, my son shot a really nice male bear with his bow as it was coming into a food plot. It was our first bear. You have great products that hold animals on our land. I highly recommend them.



■ I've been an Imperial Whitetail Clover and chicory user since the beginning. Until this year, I needed to work up my plot to fight perennial weeds, so I planted Destination, Beets & Greens and Winter Peas Plus. My intentions were to clean up the weed issue and go back to clover and chicory, but with the quality and the amount of deer usage, I'm probably going to try it again. We grow alfalfa, corn and soy-

beans on our farms, and there are 55 acres of alfalfa within 400 yards of this food plot. The deer pressure is 3-to-1 in the plot versus the alfalfa. It also takes pressure off the field crops, so it's a win-win.

The deer quality has gotten better each year I've used Whitetail Institute products. This year, we've had multiple encounters with several deer. I enjoy working the plots for my son to enjoy. He had three encounters with this deer before harvesting him this fall. Needless to say, he was excited to finally seal the deal.



# WHITETAIL INSTITUTE SUPPLEMENTS

Mineral and vitamin supplementation is vital for maximum antler growth. 30-06 mineral and vitamin supplements are scientifically designed and professionally formulated to provide maximum deer nutrition. 30-06 products are also extremely attractive to whitetails.

(30-06 products might be considered bait in some states. Check your local game regulations before using or hunting over 30-06.)

Still the leader since 1988



WHITETAIL INSTITUTE

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# FOOD PLOT PLANTING DATES...



# PLANTING DATES FOR IMPERIAL CLOVER. ALFA-RACK PLUS. EXTREME. NO-PLOW. FUSION. CHIC MAGNET AND EDGE **Call for planting dates** 8 Apr 1 - June 15



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 Valleys: 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

July 15 - Sept 5

9 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

13 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 Vallevs: Aug 25 - Oct 15

North: Sept 25 - Nov 25 South: Oct 5 - Nov 30

Mar 1 - May 15 Aug 1 - Sept 15

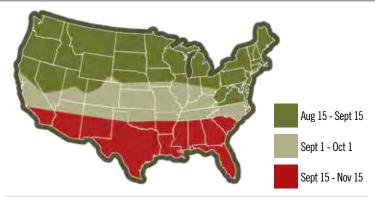
Feb 1 - Apr 15 Aug 20 - Sept 30

Apr 15 - June 15 July 1 - Aug 15

May 15 -July 1

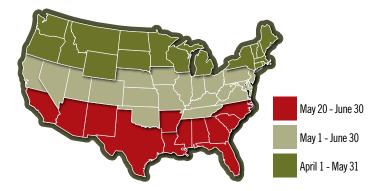
May 1 - June 15 July 1 - Aug 15

May 15 - July 1



# PLANTING DATES FOR WHITETAIL OATS PLUS

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



# PLANTING DATES FOR POWERPLANT, REVIVE CONCEAL. SUNN HEMP AND TURKEY SELECT

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

# PLANTING DATES FOR VISION. PURE ATTRACTION. SECRET SPOT. WINTER PEAS. **BOWSTAND. AND DESTINATION**

**Call for planting dates** 

2 **Call for planting dates** 

3 Aug 1 - Sept 15

Coastal: Sept 1 - Oct 15 Piedmont: Aug 15 - Oct 1 Mountain Valleys:

Aug 1 - Sept 15

5 Aug 1 - Sept 30

Aug 15 - Nov 1

North: Aug 1 - Sept 30

South: Aug 15 - Oct 15

8 July 15 - Sept 5

9 Aug 1 - Sept 15

Aug 1 - Sept 15 11 Sept 15 - Nov 15

North: Sept 5 - Nov 15

South: Sept 25 - Nov 15

13 Sept 1 - Oct 30

North: Sept 15 - Nov 15 **South:** Sept 25 - Nov 15

**Coastal:** Sept 15 - Oct 15 Piedmont: Sept 1 - Oct 5

Mountain Valleys: Aug 25 - Oct 15

North: Sept 25 - Nov 25 South: Oct 5 - Nov 30

Aug 1 - Sept 15

Aug 20 - Sept 30

July 1 - Aug 15

June 15 - July 15

21 July 15 - Aug 31

22 July 1 - Aug 15

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

**Call for planting dates** 

Call for planting dates

July 1 - Sept 1

Coastal: Aug 15 - Sept 30 Southern Piedmont: Aug 1 - Sept 15

Mountain Valleys:

Aug 1 - Sept 15 July 15 - Sept 15

Aug 1 - Oct 1

**South:** Aug 1 - Oct 1

July 5 - Aug 20 July 1 - Aug 30

North: July 15 - Sept 15

10 July 15 - Sept 15

11 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 Vallevs:

Aug 5 - Sept 15 North: Sept 15 - Nov 15 Central: Sept 25 - Nov 15

**South:** Oct 5 - Nov 30 17 July 15 - Sept 1

Aug 1 - Sept 30

July 1 - Aug 15

June 15 - Aug 1

21 July 15 - Aug 31

22 July 1 - Aug 15







# FIRST-TIME SUCCESS

Imperial Whitetail Clover field produces trophy Tennessee buck.

by Ralph Neeley

y son, Knox, had not shown much interest in hunting. Periodically, we would spend time in the blind together, but he had not fallen in love with hunting. That changed in five days.

On Nov. 17, 2020, Knox shot his first deer on a field of Whitetail Institute Fusion on our lease in Georgia. The excitement from that moment encouraged him to go to the family farm in Tennessee with me during Thanksgiving break. On Nov. 22, he shot his first wall-hanger at the edge of a field of Imperial Whitetail Clover.

There's no doubt that Whitetail Institute's products attract and keep deer on our properties. Those five days and two harvests have added another hunter to our community. created a new excitement in a teenager and added to the memories of a very proud father.



**YOU SAVE** \$32.98

*IMPERIAL* WHITETAIL CLOVER



36 LBS.-4.5-ACRE **PLANTING** 

**\$246.98** + tax Suggested Retail \$279.96 \_\_\_ (36 lb.) quantities of Imperial Whitetail Clover **TOTAL** (Add 7% Sales Tax)

**YOU SAVE** \$42.98

*IMPERIAL* WHITETAIL

EXTREME



46 LBS.-2-ACRE **PLANTING** 

**\$246.98** + tax Suggested Retail \$289.96 \_\_\_ (46 lb.) quantities of Imperial Whitetail EXTREME

**TOTAL** (Add 7% Sales Tax)

**YOU SAVE** 

*IMPERIAL* WHITETAIL

CONCEAL



28 LBS.-1-ACRE **PLANTING** 

**\$119.98** + tax Suggested Retail \$139.99 \_\_\_ (28 lb.) quantities of Imperial Whitetail Conceal **TOTAL** (Add 7% Sales Tax)

**YOU SAVE** \$42.97

*IMPERIAL* WHITETAIL

**FUSION** 



**PLANTING** 

**\$246.99** + tax Suggested Retail \$289.96 \_ (27.75 lb.) quantities of Imperial Whitetail Fusion **TOTAL** (Add 7% Sales Tax)

**YOU SAVE** 

**IMPERIAL** WHITETAIL

Powerplan<sup>.</sup>



50 LBS.-1.5-2-ACRE  $\overline{PLA}NTING$ 

**\$114.98** + tax Suggested Retail \$120.00

\_\_\_ (50 lb.) quantities of Imperial Whitetail PowerPlant TOTAL (Add 7% Sales Tax)

YOU SAVE \$29.98

*IMPERIAL* 



52 LBS.-1-ACRE *PLANTING* 

**\$79.98** + tax Suggested Retail \$109.96

(52 lb.) quantities of Imperial Whitetail Pure Attraction TOTAL (Add 7% Sales Tax)

**YOU SAVE** \$29.98

**IMPERIAL** 



24 LBS.-4-ACRE **PLANTING** 

\$189.98 + tax

Suggested Retail \$219.96 (24 lb.) quantities of Imperial Whitetail Winter-Greens TOTAL (Add 7% Sales Tax)

YOU SAVE \$39.95

*IMPERIAL* WHITETAIL



9 LBS.-3-ACRE *PLANTING* 

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

**YOU SAVE** 

**IMPERIAL** WHITETAIL



24 LBS.-4-ACRE PLANTING

**\$159.98** + tax Suggested Retail \$199.96

(24 lb.) quantities of Imperial Whitetail Tall Tine Tubers

**TOTAL** (Add 7% Sales Tax)

**YOU SAVE** 

*IMPERIAL* WHITETAIL



45 LBS.-1/2-ACRE PLANTING

**\$59.98** + tax Suggested Retail \$79.98

\_ (45 lb.) quantities of Imperial Whitetail OATS Plus **TOTAL** (Add 7% Sales Tax)

**YOU SAVE** 

*IMPERIAL* WHITETAIL



33LBS.-2.5-ACRE PLANTING

**\$246.98** + tax Suggested Retail \$289.96

(33 lb.) quantities of Imperial Whitetail Alfa-Rack Plus **TOTAL** (Add 7% Sales Tax)

\$

**YOU SAVE** \$19.98

IMPERIAL WHITETAIL

NO-PLOW



50 LBS.-3-ACRE *PLANTING* 

**\$129.98** + tax Suggested Retail \$149.96

(50 lb.) quantities

of Imperial Whitetail No-Plow **TOTAL** (Add 7% Sales Tax)

# YOU SAVE \$22.00 <u>IMPERIAL</u> WHITETAIL



## 44 LBS.-1-ACRE *PLANTING*

\$127.96 + tax Suggested Retail \$149.96 \_ (44 lb.) guantities of Imperial Whitetail Winter-Peas Plus **TOTAL** (Add 7% Sales Tax)





**\$38.00** (4) pak Suggested Retail \$52.99 \$**54.00** (6) pak Suggested Retail \$75.99 + tax

(4) 5lb bags @ \$38.00 \_\_\_ (6) 5lb bags @ \$54.00 TOTAL (Add 7% Sales Tax)

# **YOU SAVE** \$15.00 *IMPERIAL* WHITETAIL



# 10 LBS.-1-ACRE PLANTING

\$79**.**96 + tax Suggested Retail \$94.96 \_ (10 lb.) quantities of Imperial Whitetail Ravish Radish **TOTAL** (Add 7% Sales Tax)



KRAZE



**\$38.00** (4) pak Suagested Retail \$52.99 \$**54.00** (6) pak Suggested Retail \$75.99

+ tax

\_ (4) 5lb bags @ \$38.00 \_ (6) 5lb bags @ \$54.00 TOTAL (Add 7% Sales Tax)

# **YOU SAVE** \$7.04 **IMPERIAL** WHITETAIL



# 36 LBS.-1-ACRE **PLANTING**

\$112.96 + tax Suggested Retail \$120.00 \_ (36 lb.) quantities of Imperial Whitetail Destination **TOTAL** (Add 7% Sales Tax)



# • 4.25LBS - .25 ACRES • 25.5LBS - 1.5 ACRES

**\$29.99 (4.25lbs)**Suggested Retail \$39.99 + tax \$149.94 (25.5lbs) Suggested Retail \$169.95 (4.25lbs) of Impact \$29.99 (25.5lbs) of Impact \$149.94 **TOTAL** (Add 7% Sales Tax)



\$29.99 (one block) Suggested Retail \$39.95 \$57.98 (two blocks)

Suggested Retail \$69.95 + tax

(2) -Pak blocks @ \$57.98 (1) -Pak blocks @ \$29.99 **TOTAL** (Add 7% Sales Tax) \$



# • 1 PINT-1 ACRE • 1/2 GALLON-4 ACRES

**\$46.99** (1 pint) Suggested Retail \$69.99 + tax

\$146.00 (1/2 gallon) Suggested Retail \$169.00 — pint(s) of Arrest Max Herbicide — 1/2 gallon(s) of Arrest Max Herbicide **TOTAL** (Add 7% Sales Tax)



Phone:

\$29.99 (one block) Suggested Retail \$39.95

\$57.98 (two blocks) Suggested Retail \$69.95 + tax

(2) -Pak blocks @ \$57.98 (1) -Pak blocks @ \$29.99 **TOTAL** (Add 7% Sales Tax) \$

YOU SAVE UP TO \$25.02	
SLAY	SLAY
Herbicide	SLAY

# • 4 OZ.-1 ACRE • 1 PINT-4 ACRES

**\$54.48** (**4 oz.-1 acre**) Suggested Retail \$72.99 + **tax** 

**\$143.98** (1 pint-4 acres) Suggested Retail \$169.00 4 oz. of Slay Herbicide pint(s) of Slay Herbicide TOTAL (Add 7% Sales Tax)

SHIP TO:			
Name:			
Address:			
(No PO Box	es, Cannot Ship to Canada)		
City:	State:	ZIP:	
Phone:	Email:		

Payment:   Check or Money Order enclosed				
Charge to: ☐ Visa	☐ Mastercard	☐ Discover	<b>□</b> AMEX	
Credit Card:			Exp	
Date:	Sec.Code:			
Signature:				

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# **BACK-40 NOTEBOOK**

■ Brian Lovett~Whitetail News Senior Editor



# WAITING IN QUEUE

Spring offers the chance to ponder previous events and look forward to the work ahead.

he greening woods, once shrouded in darkness yet ripe with opportunity, now fall silent. And with the sun's appearance over the ridge, your mind races through the morning's events and plots a course forward.

Five chatty gobblers greeted you from the neighbor's woodlot before dawn. Three more sounded off to the north. And as you slipped into position between them, prospects seemed bright. But then the turkeys did that turkey thing and fell silent after flydown. And despite your best yelping - on which they'd choked themselves moments earlier — nothing responded. So, because you're momentarily out of options (why would you move on a turkey if you don't know exactly where it is?), you're left to scan the woods and ponder the quiet.

Silence in the turkey woods carries several meanings. It can occur when that previously loud-mouthed gobbler has finally decided to commit and is marching to the "hen" he seeks. Or, in many cases, it simply means that nothing can hear or is interested in your calling. But regardless of translation, periods of silence in spring allow introspection. And if you're hunting land you manage for deer, turkeys and other critters, those thoughts often turn toward food plots and the journey ahead. The process is already in motion during spring, of course, as perennials have started to green up and grow to meet the sun's warming rays. And if you're like most folks, you've probably hit the start button on the year's management plan, setting the stage for continuing maintenance and new projects. Still, sitting against a tree and straining your ears for distant gobbles, your mind can drift to the past and wonder about the work ahead.

Like those trails, for example. Clearing the logging road the previous fall had been a godsend, allowing easier ingress and egress to the timbered ridges up top. But accessing some of those brushchoked points remained impossible, and you surmised a few mowed paths might let you set stands closer to some bedding areas and travel routes.

And then there are the darned invasives — buckthorn, and autumn olive, mostly — that you must remove. The state forester said that should be your first step in improving the timber stand, and he showed you two perfect oak flats where the work should begin. But funding probably won't be available until late summer, and what a project it promises

And thinking of never-ending projects, you must consider your food plots again. Should you have frost-seeded the clover patch? What about another brassica plot by the shed? And you really need to clear two or three small plots in or near the timber for late-fall annuals.

At times, even planning a season's projects might seem overwhelming. But then you realize it's still fairly early in spring, and the year remains full of promise.

There. A gobble from the field edge. That's where they drifted. Your yelping brings another response, and the party seems to be moving closer.

Without thinking, you look at your setup and realize you should move. A quick relocation puts a small terrain rise between you and the approaching turkeys, making them search for the hen. And when you're settled in, you resume calling and realize the game is really on.

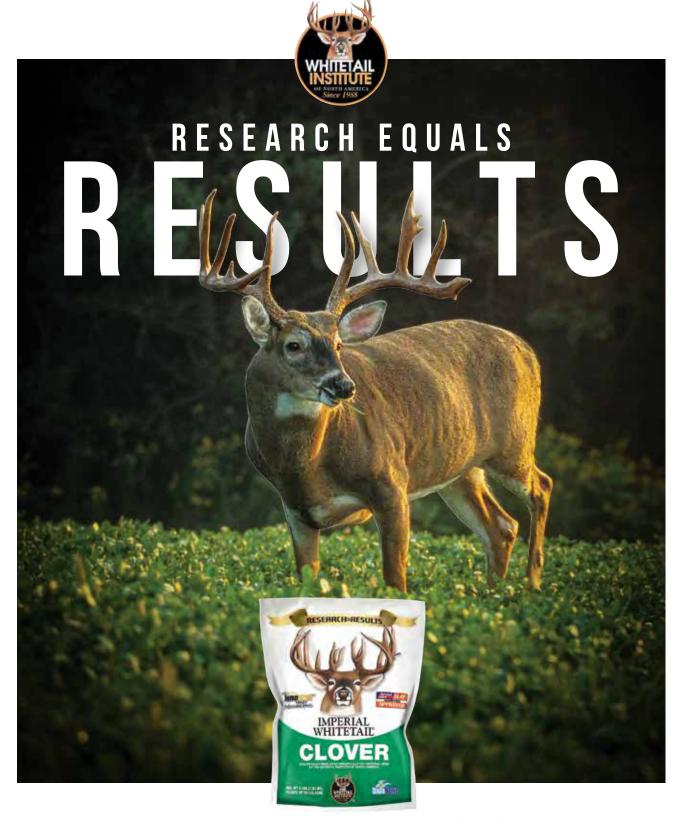
One gobble. Then another. They're right there, just out of sight near the property line. If they'll commit to the final 50 steps, the gobblers should appear right down your gun barrel at 30 yards.

The birds oblige, but in slow motion, seemingly stopping to gobble and strut with every step. The sun shines hot now, and your nerves are frayed, but it's the moment of truth.

Soon, another ear-splitting gobble echoes forth, and the low hum of drumming fills the air. A hint of motion betrays their arrival, and seconds later, a brilliant red, white and blue head periscopes above the rise.

The shot rings through the empty woods, as one longbeard stays and another departs. Faith has been rewarded again, and the spring day seems even brighter than before. With that, you swing the gobbler over your shoulder, hit the logging road and begin the long walk down the bluff. Much work lies ahead, sure, but you'll be there to tackle it. And that, you figure, might be the best aspect of all.





# IMPERIAL WHITETAIL CLOVER

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

Still the leader since 1988



WHITETAIL INSTITUTE

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# NEW VIPER LEVEL PR ALUMINUM CLIMBING TREESTAND





# **EASYLEVEL™**

Patent-pending dials on both the top and bottom platforms allow for adjustments to keep the platforms perfectly level - all while attached to the tree!

# **OTHER FEATURES:**















WEIGHT: 26 LBS. WEIGHT LIMIT: 300 LBS. MAX.

**SEAT FRAME SIZE:** 27" W x 37.5" D

**PLATFORM FRAME SIZE:** 25" W x 36" D

SEAT AREA SIZE: 18" W x 12" L // 12" W x 20" H

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