

# Dr. Deer's™ PRESCRIPTION

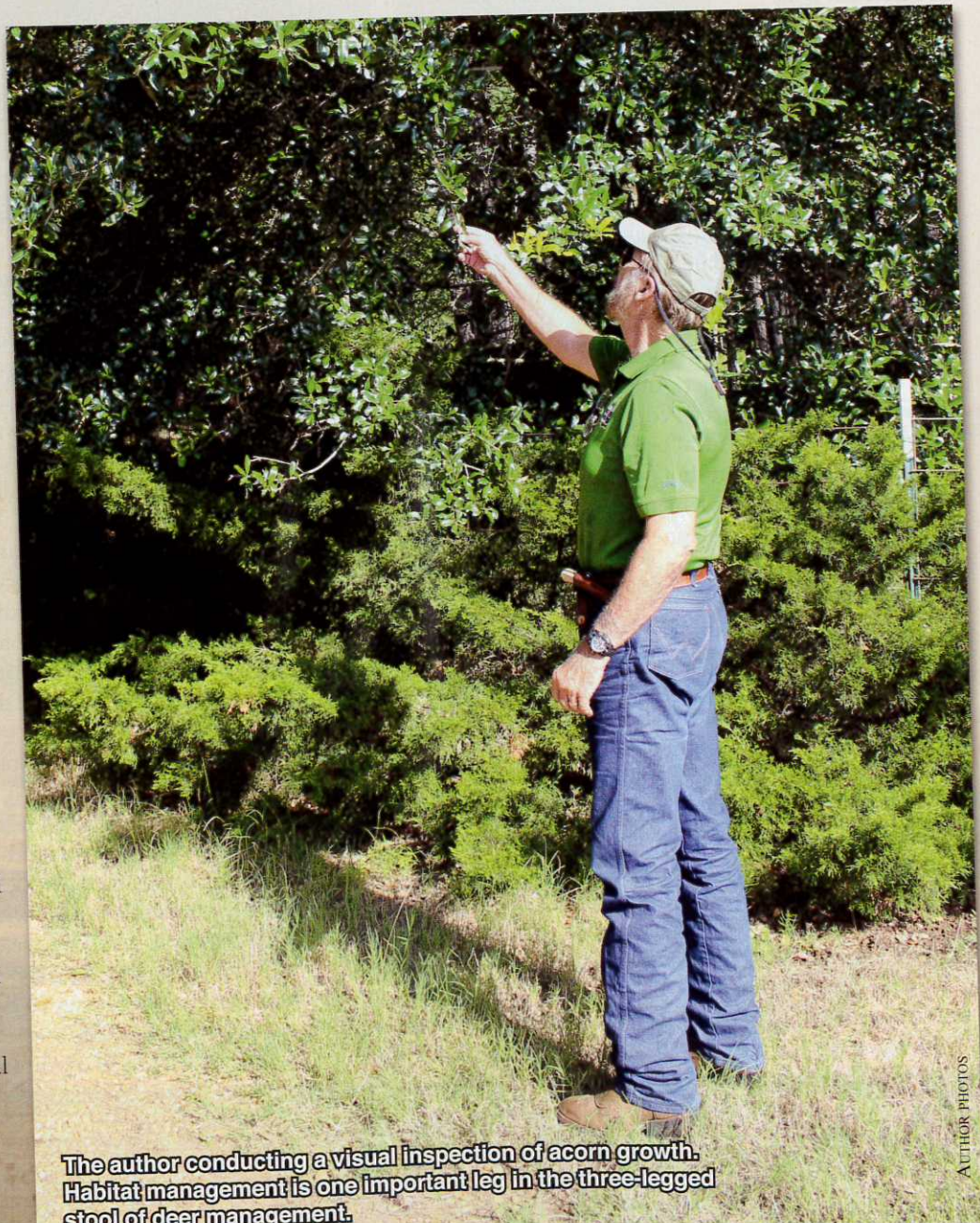
## The Metrics of Deer Management

By Dr. James C. Kroll

Barely a week goes by I do not receive at least two emails or calls from someone disappointed in their deer management program. The scenario is always consistent: he purchased property specifically for deer hunting and had dreams of growing big bucks; he's read everything he can get his hands on; tried every "magic bean" on the market; passed up young bucks one after another; and the result is nothing but disappointment. After many questions, I learn exactly what I had expected: the fellow has no true goals, no plan, and no records! This predicament is not limited to landowners. My stint as "Deer Trustee" of Wisconsin taught me that even game agencies can fall into the same "endless do-loop."

Success, by definition is the achievement of a goal. So establishing a concise statement of your goal is the first step to successful deer management. There is a difference between a goal and an expectation. "We want to kill big bucks," is not a goal; it's an expectation. "We want to harvest five mature bucks annually," is a goal.

Successfully achieving this goal is dependent on two things—a plan and good records. It would take several issues to outline what exactly should be in a



The author conducting a visual inspection of acorn growth. Habitat management is one important leg in the three-legged stool of deer management.

AUTHOR PHOTOS



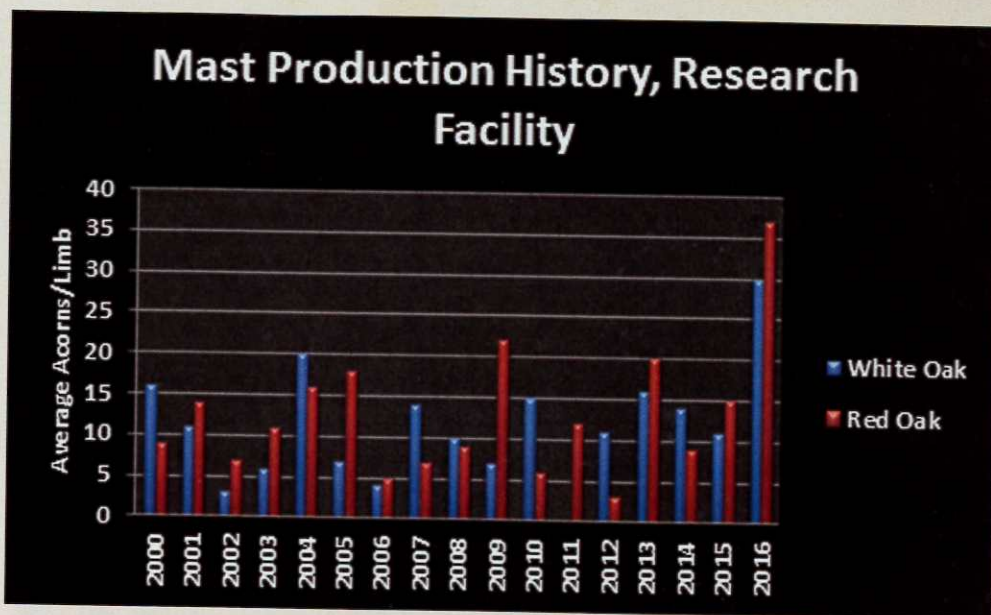
plan. I would rather focus on the measurements needed to assess your progress toward success. What are the measures—metrics—of deer management, and what do they tell you about your herd?

### The Management Stool

I have repeatedly noted that deer management is a three-legged stool. One leg represents habitat management, another population management, and the last one represents people management. My reasoning in selecting a three-legged stool is obvious. If you take away one of the legs, you fall on your behind. So, a good management program focuses on each of the legs of the stool. Good record keeping and analysis are the keys to any management program. So, I am writing this series on each of the three legs of deer management, beginning with habitat.

### The Metrics of Habitat

Habitat management is the foundation on which deer management is based. Habitat includes food, cover, water and space. A sound management program be-



**Good record keeping on your property is essential in deer management, enabling you in achieving your goal for taking better deer.**

perspective on where exactly things are on your property.

I once helped manage one of the most famous hunting clubs in eastern Texas. It belonged to the largest timber company in the state, and it was a family-owned corporation. Each year, we painstakingly developed a map of the club, with updates on stands, feeders and roads;

line around each habitat type, no matter how small it may be. The next step is to visit each of these and collect information about what that particular “patch” can do—or not do—for your deer. You also can make notes as to what can be done to improve it, or even to convert it to another, more important purpose.

We normally write prescriptions for

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gins with an assessment of your habitat and a way to monitor what is happening over time. The best place to start always is a recent aerial photograph of your property.

Google Earth and other online services provide you with resources I only dreamed about as a young biologist. You would be surprised how many people have never seen their property from the air. The first thing it does is gives you a

and, each year the owner would tell us that one of the stands was in the wrong place. We dutifully changed the location, knowing full well that we had it located perfectly.

I often write about landscaping for deer; meaning you lay out the habitat elements of your land in such a manner that your deer have everything they want, where and when they want it. So, the first step in developing your data is to draw a

patches that are no different from the one the doctor gives you for medication. Nowadays, when you take the prescription to the pharmacy, they give you an exhaustive document outlining the when, what, and how of taking that medication. It’s the same with habitat management. You need a detailed prescription for each activity needed to reach your goal for habitats.

Your map is your first metric of deer





**Good habitat management includes controlling what should and should not grow on your property.**

management; and, it should be a “living” document. As habitat management activities are completed, your map should be changed to reflect what you have done. You also should re-visit your habitat landscape each year to assess how it’s progressing towards your goal.

I prefer to classify habitat patches as forage production, travel corridors, sanctuaries, summer thermal cover, and winter thermal cover. So, your habitat measures should be able to detect the quality of each. Forage production is one of the hardest to quantify, not because it’s a difficult concept, but because it takes the most work.

The first step is to find out exactly what the deer are eating and want to eat on your land. The average landowner is, unfortunately botanically illiterate. When I tour a property with the owner, he or she is amazed I can point out various species and what they mean to deer. Yet, it’s not difficult to learn to recognize these plants, because in most habitats there probably are no more than 20 species of important plants. And among these, there are a handful that can tell you the most about your deer food quality.

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survey, the census methods currently in use are incredibly inaccurate. Yet, you *do not* need to know how many deer you have. You need to know what the stocking rate is.

Cattlemen long ago came up with ways to determine how many cattle to keep on their property. They conduct a range evaluation, looking at key plant abundance and usage to develop a stocking level—low, medium or high—for each pasture. Likewise, you can do the same thing in your forage management areas. Walk around the area in late winter and record the browse species present and how much use each has received over the previous year.

You never want to have more than 50 percent use of the basic, mainstay browse species. I use the following three categories for my deer range evaluation: 35 percent or less (light), 50-70 percent (medium) and 70 percent or more (high). I keep these records for each area on a management property. Over time, you can compare stocking levels to determine how your habitat is doing. I graph the percentages each year for each patch.

That’s an easy way to notice an early warning that your stocking level is changing. Again, stocking does not translate to density. Two properties across the road from each other can have very different deer densities, but have the same



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stocking level. It's about food, not numbers of deer.

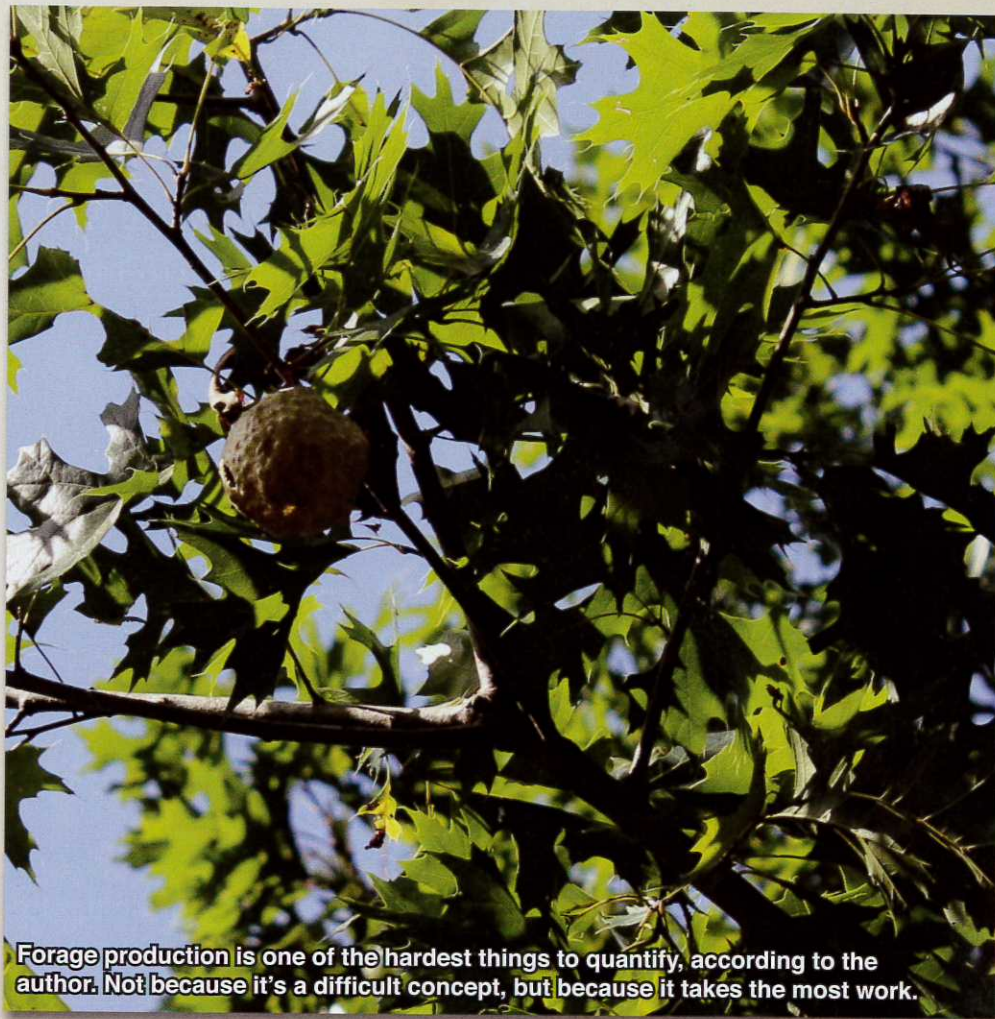
Speaking of food, each year I'm asked about the acorn crop for the coming year. That's one of those trap questions, since the acorn crop changes from one property to another, depending on the oak species present, their average age, and condition. So, I learned long ago to just say, "spotty." That keeps me out of a lot of problems.

However, on a specific piece of land, you can predict the acorn crop easily. As I write this, it's early June and I have just completed my mast crop assessment of our research ranch here in East Texas. Each year, I walk the same lines, stop at the same stations, and examine the limbs of oaks with a pair of binoculars to count young acorns. So far, it looks like my deer will have a huge acorn crop to enjoy, both from white oaks and red oaks. Again, over time you can develop trends using these data. You also can keep weather records and correlate these to your acorn crop.

What if your land is in South Texas? There's not much in the way of acorns down there. Yet, the mesquite bean crop has a lot to do with herd health and how hard you have to hunt this fall. So, in working with ranchers in this area, I conduct the same inventory, only looking at mesquite bean crops. You can develop an inventory method for any geographic area and any crop favored by deer. I even keep track of the crops farmers are planting around places I manage in the Midwest.

What about water, one of the key elements for deer health? I also map and keep track of water sources and availability around the property. Deer need a reliable water source per 80 acres, so if your map does not show one, the next question to ask yourself: What can you do about it? I like artificial water from simple tanks and troughs. Using trail cameras, I keep track of which deer are using each water source and the demographics of the deer coming to each location. You will find that bucks and does often favor different places.

You should keep records on your supplementation program, too. That includes feeding (where legal) and food plots. I



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keep a map of the exact locations of each feeder, including the type (spincast or free-choice). I also keep records on how much feed is being used and the demographics of the deer using the feeders.

Food plots require a host of records for success. It all begins with the soil. There is no substitute for a soil analysis for a successful food plot program. Keeping records on the soil nutrients from season to season and year to year will not only make your food plots more productive, but also save you money in many cases.

Food plot yield is another metric for your nutrition program. You can simply clip pre-determined plots and weigh the forage to obtain yield in pounds per acre. You also can create a visual impression of food plot usage by placing an exclusion cage on each plot. Next, some plots grow one crop well while another fails. Keeping records on what you plant, when and how you plant it, and how each variety performs will greatly enhance your program.

### Annual Review

Each year, I recommend you sit down at your computer (or even that yellow legal pad) and review all your habitat records to determine how you are progressing toward your goals. The great thing about records is they can give you an early warning about critical factors affecting your program. A good friend once said, "Without records, everyone's opinion is as good as anybody's!" Over time, your habitat records will lead you through a successful program. Your metrics will not only tell you how well you are doing, but where you may need to make changes.

Next issue, we will discuss the second leg of the management stool, deer population management.

*Editor's Note: This series represents a popularized version of a document Dr. Kroll has written for Wisconsin to help with their new Deer Management Assistance Program (DMAP).*