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Dr. Deer's™ PRESCRIPTION

What Now?

By Dr. James C. Kroll

Forty years ago, people started getting interested in whitetails around the opening weekend of deer season, and lost interest by the Thanksgiving holidays. My life was a whole lot more relaxed in those days, since my speaking schedule filled up for only a week or two; leaving me plenty of time to study my favorite animal. Today, interest in all things "deer" has escalated to monumental proportions; and, I could spend my every waking moment giving a presentation somewhere around the range of whitetails. Ben Koerth and I field a lot of questions during our talks, but a recurring one is, "What should we be doing right now?" So, we are beginning a new series with this issue. I will be giving you a "deer calendar" so to speak, focusing on what you should be doing right now and why. This is the July-August issue of *The Journal*. You probably are beginning to think about the coming season, and hoping your bucks are bigger and more abundant than last year. Unfortunately, many of your management programs are at the "five- to seven-year disappointment" stage. You are just not seeing the progress you expected. So, beginning right now, let's get you on the right track.

The basic principles of trophy whitetail management are simple. It is the execution of these that is so difficult. Further, the most important activities are not the most exciting. Unfortunately, most folks would rather talk about culling than record-keeping. Yet, good records are the backbone of good deer management. Running a deer management program is no different from running a business. You never will succeed in business without having a solid idea of how much inventory you have and whether or not you are profiting from activities. So, we will begin this series with what I call, "Taking Inventory."

It has long been my position; census is one activity that has caused more loss of credibility for professional biologists than any other. It almost is impossible to know exactly how many deer you have on your property. But, you can obtain sound information about what is going on with your deer right now. Basically, you need to obtain information on the quality and age of bucks, as well as the potential productivity of your herd coming into the fall. The best way to do this is through infrared-triggered cameras. We were fortunate enough to have developed the first of these devices back in the 1970s (see photograph). Initially, we were interested in obtaining photographs of deer coming to natural mineral licks. Using a simple triggering device, we managed to obtain actual photographs of deer coming to these mineral licks, which later led to development of the first ever deer mineral. Later, we learned there is a lot more to learn than just what deer are coming to a mineral station.

Dr. Harry Jacobson, Ben Koerth, Randy Browning, and I later conducted landmark research in Mississippi that led to a reliable census technique using the cameras. We positioned a camera in the center of a 100-acre block, overlooking a corn bait pile (legal in Mississippi at that time). We discovered 10 to 14 days of operation would yield at least one photograph of 95 percent of the deer using that area. Using the number of different forked antlered

bucks as our basis, we were able to reconstruct the herd, using calculated buck to doe, doe to fawn, and spiked to forked ratios.

Later, Ben and I refined the methodology to obtain far more useful information than the number of deer. We now use the cameras twice each year; in late summer to get the fawn crop, then again in late winter-early spring to obtain recruitment (percentage of fawns reaching one year of age). We also found the photographs useful in establishing what we refer to as our "hit list;" the bucks we want to remove during the coming hunting season. Of course, just because you say you want to remove a buck does not translate to successfully doing this. But, it does give you a basis for establishing harvest criteria. And, it also allows you to designate the bucks you absolutely do not want to shoot. So, now is the time to set up your first deer inventory. Let's discuss the what, where, and how of this activity.

Some of you either own or lease very large properties, while others only have a few acres. Either way, you have to decide how much coverage you need to obtain to get accurate information. If you want an estimate of the deer population, you will have to employ techniques similar to those we used in Mississippi. But, this can be very costly! If you own or lease 3,000 acres, this will require as many as 30 cameras, each costing $200 to $400; translating to an initial investment of more than $6,000. [Of course, for what helicopter time costs nowadays, that may be cheap, since the life expectancy of good cameras is at least 3 years.]

However, it is my contention you never really need to know exactly how many deer you have; only the key indicators of herd health—buck to doe ratio, buck age structure, condition, and productivity. So, a camera density of one per 160 to 320 acres will work fine. I suggest you position each camera over bait, starting in early September, and running the census for 14 days. Now that we have digital cameras, this is very possible, especially since large scale storage devices (300 GB or larger)

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Fawn crop and recruitment are two very important diagnostics to herd health and management progress. You should conduct a camera census in September and again in late winter. The former will give you an estimate of the fawn crop, while the later census will give you the true recruitment for your herd.



Author Photos

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are so inexpensive. Most cameras come with a programmable or choice of delay times between photographs. I suggest you select at least 5 minutes, since you easily can fill up even a lot of storage in a short time. You would be amazed how many times you can photograph the same doe.

Once you have your census complete, download the images to separate files on your computer, each representing one camera station. If you are computer illiterate, have the local processor print the photographs and place them in albums. (Poor you!) Be sure to ask the processor to cull out any photographs that do not contain deer, because this is not a hog or raccoon census!

The next step is to create a folder at each location for bucks and other deer such as does and fawns. Bucks can be broken down by age, then number of mainframe points. Yes, you can learn to age live deer, even from photographs. We (SFA) have a book and video we produced back in the 1990s that will train you to do this (see advertisement in this issue). After you get your bucks classified for each station, compare the photographs between stations to eliminate redundant photographs of bucks visiting multiple stations. The next step is to count the number of buck, doe and fawn photographs. This will allow you to estimate ratios of does to bucks and does to fawns (a.k.a., "fawn crop").

Once you have this information, what do you do with it? First, if you add up the actual number of different bucks for each age class, you can calculate age structure for this segment of the herd. What makes a good buck age structure? The perfect deer herd contains old bucks and young does! If there are not more than 25 percent of your bucks as 4½-year-olds or older, you are not going to have trophy class bucks. Further, a great diagnostic of trophy potential is the eight-point to 10-plus-point ratio for 3½-year-old and older bucks. What is a good ratio? It should not be less more than 2:1. If it is higher, you are removing too many multi-pointed bucks and degrading your herd.

Although I have been critical of biologists who place too much emphasis on fawn crop, rather than recruitment, calculating the apparent fawn crop in early fall certainly will tell you a great deal about herd health. Likewise, an experienced manager can calculate the proportion of yearlings in the herd from a camera census. This gives you a firm idea of the recruitment. If you include the quality of antlers for yearling bucks, you now have a great deal of information about your herd and your management program.

So, to answer the question, "What do I do now?" one of the most important activities for late summer-early fall is a camera survey. If you do it correctly, by the middle of September, you should know the following:

- Buck Age Structure
- Age-specific Antler Quality
- Fawn Crop and Recruitment
- Numbers of Harvestable Bucks

Once you have this information, it is a whole lot easier to decide what you may want to do during the coming season. Next issue, I will explain what must be done during the season to improve your management program.

