

Forest Management

For White-tailed Deer





The Green Dinner Table



The familiar spotted coat of a young fawn aids in concealing the animal by camouflaging the deer within the surrounding habitat.

In general, as much of the northern forest region matures, what is called natural succession occurs where long-lived species of trees like sugar maple slowly replace shorter lived species like aspen. Eventually, that forest closes its canopy into a tight shade and you end up with what I call the “park look”—heavily shaded, closed-in canopy with little or no growth on the forest floor. We’ve all walked through that type of forest. You can see that this is not an ideal situation for white-tailed deer; their green dinner table having been placed out of reach.

If you do nothing with your property, this will eventually occur — if not in your lifetime or your children’s, at some point down the road. Perhaps it has already. In most cases, effective deer habitat management can be achieved using good timber management practices as a tool to keep the dinner table at deer height.

When we talk about forest management for white-tailed deer, we have a tendency to consider only if deer will be on that piece of ground during deer season. Even though that’s important, the big picture is whether your forest land has the capacity to produce a good supply of deer in the first place. The key factor in that equation is, very simply, FOOD.

We all tend to think of deer as “browsers,” an animal whose main food is twigs and buds. In reality, deer eat “browse” only because they have to. It’s the only thing available in winter. “Browse” as we tend to think of it, is survival food, the bad tasting energy bar you throw in your backpack to eat if you get stranded out in the bush. If your land is in a natural deer wintering area, of course this food is important. But if your land is not where deer winter, you could provide an entire forty of succulent maple twigs three feet tall to browse on and serve *zero* deer.

Deer wintering area or not, the most important factor to deer on whether they want to hang out on your property at all, is the size and diversity of green foliage available from April to November. This includes the green leaves and grasses, the acorns and mushrooms, but NOT the twigs. Studies conducted on the stomach contents of road kills during this time period show that only *three percent* of a deer’s diet from April 15 to November 15 is woody twigs!

In the following pages, I will illustrate some of the easiest, most practical forest management techniques that most any landowner or hunting camp can perform to increase and sustain their deer’s “green dinner table.” These practices can be very rewarding and offer yet another opportunity for the hunting clan to get together in the off-season.

For most whitetails, food preference is seasonal and normally determined by availability.



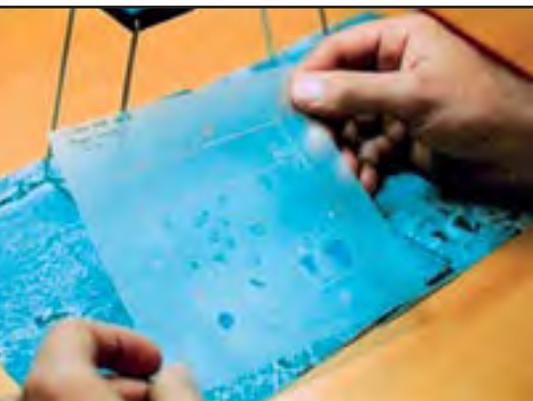
By Ted Ave’Lallemant
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Photos courtesy of WI DNR

A forest is an ecosystem that is trying, ever so slowly, to put the deer’s “dinner table” out of reach.

Develop a Long Range Plan



To achieve the most from your property, contact a local conservation agency for advice on land enhancement practices specific to your area.



Before you do anything, make a working map of the property to be enhanced.

Before deciding what to do on your property, it is vitally important to determine *what you have*. For instance, you may have excellent deer habitat to begin with, the alteration of which could actually be detrimental. Or maybe the forest you own holds promise for several management options, allowing you to choose the option that best fits your land stewardship goals.

How does your land fit into the overall habitat picture? What type of soils are present? What timber types do you have to work with? Where and when would it be most advantageous to conduct a timber sale? Where should logging roads be located to provide you with the best future access? Many questions. Many answers.

The starting point is to seek professional guidance. This service is normally provided free of charge by various county

and state conservation agencies, or on a fee basis by private forestry consultants. Sit down with a local land manager and develop a long-range forestry/wildlife plan. Though some variation certainly exists in the writing style of land managers from different regions, most forest management plans are formulated in a similar manner.

The first step is to clearly define the goals for your property. Landowners often ask, “what should I do with my woodlot?” The general response is, “what do YOU want to do with it?” In addition to deer habitat, you might be concerned with grouse habitat, specific tree stand location, a future cabin site, fall colors, roads, tree planting, spreading out timber sale income ... the list goes on. Once your exact desires are understood, a plan can be formulated specifically for *you*.

Next, you can study air photos, soil surveys, and possibly historical records of your property. All of this is before you even head for the woods.

The land manager will then conduct a field survey of your parcel, collecting data on tree species and age, growth rates, habitat potential, etc. all the while assessing if the landowner goals can be met. Once this field data is analyzed, a management plan is drawn up that typically includes a detailed map of the woodlot, support literature, and a plan of suggested practices spanning a 25-year period.

Unfortunately, some landowners forge ahead on their own with activities they believe are benefiting the forest ecosystem only to find out later that their energy was misdirected after it's too late to put the trees back. Lay out and follow a long-range plan that improves the forest and puts more greenery on your deer herd's dinner table.

Once the plan is set, you're ready to begin! Next we'll discuss the role that oak trees play in deer management and the simple forestry activities you can do to improve this vital resource.



Both good forestry and deer habitat management will help increase the oak component of the forest.

The Role of Oak & Aspen in Deer Management

Oak. It's hard to think of any other tree that is so instantly recognizable as being an important food source for white-tailed deer. It is certainly no secret to hunters, with plenty of coffee talk centering around how good the acorn crop is any particular year. From a forestry standpoint, oak is exceedingly valuable, drawing a solid price as a sawlog. Both good forestry and deer habitat management will generally strive to increase the oak component of the forest. Unfortunately, improper timber harvest techniques can and often do eliminate oak and oak regeneration virtually forever.

If you are fortunate enough to have either red or white oak on your private woodland, there are a few easy steps you can take to improve the quality, abundance of, and acorn production capabilities of these important trees.

Acorn production increases in direct proportion to the size of the oak's crown (upper branches), i.e. the broader an area that the oak crown covers, the more surface area capable of producing acorns. For large oak, those that are tall enough to share the upper canopy of the forest with other mature trees, this can be improved

by cutting down trees whose crowns compete directly with the oak. Once you've located a large oak, stand directly below it and look up. Are branches from neighboring trees touching the oak's branches? If so, it stands to reason that if you cut these trees down, the oak will have room to sprawl out and occupy the area once held by the other trees. The result? Better long-term acorn production and an improved growth rate of a potentially high valued sawlog.

For smaller oak, even as small as one foot tall, it means cutting the overtopping maples and other trees, revealing the young oak to more direct sunlight.

You don't need to wait for a commercial timber sale opportunity to conduct this type of oak management. This is an ideal chance to get the hunting party together in the off-season. You'd be surprised to see the amount of oak that a group of three or four people can release in a day's time. Trees that are cut down can then be utilized as camp firewood.

The best time to locate your oak trees is generally about the middle to end of October. While all the other trees have lost their leaves, the brown crimson leaves of oak remain on the stem and stand out like the proverbial sore thumb. You're out prerut scouting anyway — mark your oak trees with flagging tape and return in the winter to release them ... you know ... after hunting and football are over!

Next, we'll examine the key role of aspen as it relates to whitetail habitat.

Aspen sprouts, dog-hair thick. You know the deer are in there, it's just a matter of how to shag them out. If you're a deer hunter who is familiar with the aspen timber type, you know what I mean. If your private forestlands contain aspen, the bottom line is ... **DON'T LOSE IT.**

The aspen forest, in general, has a higher carrying capacity for deer than other forest types. When aspen is a primary component of the forest, deer densities are known to range as high as 30 or more animals per square mile. If you're like me, you thought this was because deer just love to browse on young aspen twigs. That's true in natural wintering areas, but in actuality, they much prefer the presence of green aspen leaves during the growing season. Aspen leaves, if available, comprise up to 30% of the deer's summer diet.

But let's think about that. Green aspen leaves are still only available for the first two or three years after a harvest, while sprouts remain within reach. The key as to why the aspen timber type has such a high deer carrying capacity relates to the structure of the aspen forest itself — the way aspen grows. During much of its life cycle, aspen allows more light in through its canopy, developing a better and more diverse understory of grasses and forbs. What does this mean? More green food at deer height — and more deer.



That's great. Preserving or expanding aspen in your woods sounds like the right idea for deer. Is it possible to lose aspen? Yes. One way is to do nothing. Aspen is a relatively short-lived tree that requires nearly full sunlight to regenerate. When a mature aspen is cut, its entire root system literally explodes with new sprouts. Left uncut, your aspen trees will mature, eventually die of old age, fail to sprout back, and be slowly replaced by longer-lived species like sugar maple. Another way to lose aspen is to cut it incorrectly, such as failing to provide the full sunlight condition needed for sprout survival.

In general, people fear timber harvest, and they especially fear clear-cuts. We have a tendency to think it "looks better" to leave plenty of residual trees standing after the mature aspen are cut. These residual trees, usually maple, will effectively shade out your aspen sprouts. In either case, you may have lost the aspen component of your woods, possibly forever. Less aspen, less deer. You decide.

If your woodlot contains any aspen at all, when is the right time to attempt regenerating it? Your best bet is to contact a forest resource professional and have your woodlot examined. Perhaps with a few well-timed patch clearcuts, you'll be lucky enough to be asking yourself, "Just how are we going to shag deer out of those thick aspen sprouts?"

lands. The following information details the methods that private landowners can employ to improve or create forest openings on their woodlots.

Improvement of Natural Openings

Quite frequently, forested acreage may already have one or more naturally occurring openings. These exist as frost pockets or are the result of past disturbance and use. Recently harvested stands may also have one or more "log landing sites" that could be converted to forest openings. Any of these can be managed to provide better deer habitat. In general, we can refer to these types of sites as those requiring light site preparation.



This area photo depicts an aspen harvest and what it looks like after only one season of aspen growth.

Mowing is an important part of opening maintenance.

Light Site Preparation

- ✓ Timing should be in spring or early summer to facilitate seed germination and establishment.
- ✓ Area should be prepared to expose a minimum of 90% topsoil. This may involve clearing the brush, rock raking, discing, or otherwise working the area to till up the soil for seeding.
- ✓ Area should have all debris (wood, rocks, roots, etc.) removed and then dragged to smooth and level the soil bed.
- ✓ Seed the prepared seed bed with the following mixture:

- 12 lb. White Dutch clover per acre
- 9 lb. Kentucky Bluegrass per acre
- ½ -1 bushel of oats per acre as a cover crop

Note: This seed mixture was developed by DNR wildlife staff for use in north central Wisconsin. Contact your local agent for site specific information on mixtures.

- ✓ Fertilize the entire area with a 20-10-20 mix at 200 lbs. per acre.
- ✓ This seed and fertilizer should be lightly dragged into the soil, not too deep. This can be done by dragging an old bedspring behind a 4-wheeler or any similar process.
- ✓ Periodic maintenance will be required.

In years to come, mow the area once or twice a summer if possible. If annual maintenance is impractical, control encroaching berry brush and other woody plants by mowing, hand cutting, or herbicide every four years.

Forest Openings

White-tailed deer in the northern forested region benefit greatly from the presence of upland grassy openings in the otherwise continuous tree canopy.

Deer frequent these areas, feeding on the palatable grass and herbaceous cover. The ideal size of a forest opening should be between 0.7 and 1.5 acres located a quarter-mile or more from agricultural





The development of seeded wildlife openings provides lush green springtime vegetation, essential for a healthy deer population.

Creation of New Openings

If your forested acreage does not already contain open areas that can be improved, you may wish to consider actually constructing one or more. This is typically a substantial operation involving the use of heavy equipment. Of primary concern is picking the location of the constructed opening since moving it is not an option. Some thoughts to consider in locating the opening are:

- ✓ Is the area a quarter-mile or more from existing agricultural land?
- ✓ Is the area well drained and on higher ground?
- ✓ How does the location fit into hunting strategy and trail location?
- ✓ What shape is it? An irregular, somewhat oblong shape is best.
- ✓ How will I access this in the future for maintenance?
- ✓ Can the above criteria be found in an area that already has the least amount of existing trees to cut and move?

If you feel you need assistance answering these questions, be sure to contact your local Department of Natural Resources for in-the-field assistance.

Now, let's assume you are ready to construct a wildlife opening in a forested area. We can refer to this type of site as that needing medium to heavy site preparation.



Seeding and fertilizing existing log landings can also provide a quick and lasting source of deer browse.

Medium to Heavy Site Preparation

- ✓ As before, openings should be between 0.7 and 1.5 acres in size.
- ✓ If area is occupied by firewood-size or larger trees, cut and remove these trees from the area, leaving a "high stump" (approximately 2 feet).
- ✓ Bulldoze the area by pushing stumps and debris into piles in a "retrievable location," leaving at least 50% of the perimeter free of debris. In other words, you don't want to form a berm ring around your opening that makes it difficult for wildlife to enter from all sides. Bulldozing should also be conducted in a manner that scrapes off the LEAST amount of topsoil possible. An experienced dozer operator should be able to perform this task.

- ✓ A minimum of 90% topsoil must be exposed.
- ✓ Now, follow the same guidelines as outlined for Light Site Preparation.

Note: Several years after establishment, it may be necessary to retrieve some of the topsoil that was pushed off to the side when the stumps were removed. The need to do this would be evidenced by an inability to achieve a grass and clover cover on spots that were stripped too heavily of topsoil. Once the stumps and roots, etc. have decayed within the berm piles, a dozer may be brought in to push these back out into the opening, thus returning the topsoil to the site. The area would then require regrading and seeding in those spots. 🐾