



Land managers can take several steps to help deer survive the frigid lean season.

■ Text and Photo by Matt Harper

WINTER WOES



“WEAKNESS DOES NOT NECESSARILY JUST AFFECT THE OLD, SICK OR YOUNG. SEVERE WINTERS CAN TAKE SOME OF YOUR BEST BUCKS.”

I'm not a big fan of winter. Some folks love the snow and cold, as it provides a platform for adventures like skiing, snowmobiling, sledding, ice-fishing and snowball fights. Then, of course, there's the beauty of a winter landscape of crystalline, glistening vistas created by wind and snow.

I get that, and I suppose if you're playing outside or sitting inside enjoying the view next to a warm fire, winter can be enjoyable. But for me, winter means checking cows in bone-numbing temperatures, tractors and trucks that won't start, cattle waterers that are frozen, and everything being brittle, prone to breaking and constantly getting stuck in deep snow. There are things I like about winter, such as the colder temperatures needed for good bowhunting and even colder temperatures and snow attracting deer to food sources for late-season hunts. When that's finished, however, and tags and freezers are filled, you're left with the snow and cold. Maybe that's why I don't like winter. It's a brash, harsh reminder that I have a year to wait for another deer season.

In Iowa, we can hunt deer through early January, with the late muzzleloader season ending about Jan. 10. Then it's time to take down ground blinds and trail cameras (I actually wait a couple of weeks to see which bucks made it through season) and pack away the accouterments of deer hunting. Then you enter what I call a whitetail hunter's purgatory: several weeks when you wander aimlessly, lost without your hunting north star. It's too early to plant food plots, and mineral sites are covered with snow. You could scout, but do you really want to do that in snow and cold? That can be done in a couple of months, when you're out shed hunting. So essentially, it seems everything deer-related stops. But as you sit inside, warm, comfortable and waiting for the snow to melt, there's a life-and-death struggle to survive outside in the deer world.

THE HARDEST PART OF THE CYCLE

A deer's life is a continuous cycle revolving around survival and perpetuating the species. Spring and summer are typically the months of plenty, when food sources are at their peak. A new generation of fawns is being born and raised to strengthen the herd ranks. Bucks are living the bachelor life, done with fighting, and content to hang out together and leisurely prepare for fall. Autumn marks the season of beginning, at least from the perspective of proliferating the species, and it's

filled with action and intensity, as the theater of the rut rolls back its curtain for another riveting performance.

And then there's winter, which often goes unnoticed by deer hunters, as our interests turn in other directions. Sure, we might see deer grouped in a snow-covered cornfield or huddled in a thick patch of evergreens, trying to avoid an icy north wind. But short of being glad there are still deer around, we pay far less attention than we would if the calendar were flipped to August or September. Even bucks are largely unidentifiable, as their physical profile is not dissimilar to that of their female counterparts. So it's understandable why deer move to the back burner of our sporting consciousness, replaced by considerations about new turkey calls, restringing a favorite reel or maybe dusting off the golf clubs. But in truth, winter is one of the most critical times for deer management, as it's a period with one of the highest death rates. Ice, snow, cold temperatures and a diminishing food supply kill many weaker animals. But weakness does not necessarily just affect the old, sick or young, as you might expect. Severe winters can also take some of your best bucks.

WINTER AND DEATH LOSS

When most people think of deer succumbing to winter, the first thought is that cold temperatures are the main culprit. After all, on a cold February night when temperatures dip below zero, it's difficult to imagine how anything could survive. And severe cold can contribute to winter kill. But deer are pretty well adapted to cold weather, especially where cold temperatures are normal for winter.

Deer undergo a molt during which they completely change their hair coat to one best suited for a season's temperatures. During summer, deer sport a hair coat that's dense and consists of solid-cored hair. This hair type helps to keep the animals cooler in spring and summer. When temperatures begin to cool and summer rolls into fall, deer trade their summer hair coat for the winter version. Winter hair is hollow and provides much greater insulating ability to aid in maintaining thermal homeostasis. If you have seen deer bedded during a snowfall, you'll notice the snow doesn't melt off their body, which shows the ability of the hair to insulate the internal heat deer produce to maintain body temperature. Again, I'm not saying cold doesn't play a part in the death of some deer, but other factors are more detrimental.

Wind and ice can challenge thermal homeostasis more than cold temperatures. Freezing rain and cold mud at 25 to 30 degrees can be harder on an animal than 0 degrees with no wind and sunshine. Wind and moisture dissipate the core heat of warm-blooded animals more quickly.

But a bigger contributing factor to winter kill is probably the lack of quality chow and the quantity of food. It takes energy for a deer's body to generate heat to stay alive and move through deep snow cover. Winter presents ever-diminishing food and a consistent decline in food quality as the cold months pass. Liken it to you stocking

your pantry in spring and summer to have enough supplies for fall and winter. And imagine your pantry is a mile from your house. Early in winter, you have plenty of food, and it's an easy walk to get there and back. As winter drags along, with colder temperatures and ever-increasing snow, your pantry starts to run low, and you burn more energy trudging through the cold drifts to get your food. Remember, you can't simply go to the store to restock your pantry, so when the food is gone, it's gone. You must wait for spring for any chance to rebuild your food supply. That's what deer deal with in addition to avoiding predators, which requires

even more energy.

Quality food is relatively abundant in fall and even early winter, but when plants and bushes stop growing, and hard and soft mast has been produced, there will be no more food provided until spring. Deer must live on whatever food sources are available. By late winter, food has decreased, along with the quality of those sources. Deer have scavenged every picked crop field, acorn flat or bushy browse they can find. They have a protection mechanism to help them maintain an energy balance of usage and consumption, which is essentially a form of hibernation. They don't den up like bears, but their metabolism slows, resulting in a decreased demand for food. Even in captivity, where deer are offered all the food they can eat, their intake often decreases during winter. But that doesn't mean they can go without eating, and starvation is still the most likely contributor to death. The greatest cause of winter kill is the combination of harsh elements combined with a lack of food.

WHO DIES?

First-year fawns make up a significant percentage of winter kill. They are smaller, and moving in deep snow is more difficult for them, which can lead to a downward weakness spiral. Their smaller size also makes them more susceptible to heat loss. The larger the animal, the greater the ability to maintain core body temperature, because of less surface area compared to mass. Deer that are injured, sick or old will also be susceptible to winter kill. But as mentioned, even bucks you were chasing in November, which were in the prime of life and appeared as strong as an Angus bull, are often the victim of the winter reaper.

During the rut, bucks burn a tremendous amount of energy while seeking, chasing, fighting and breeding. They are constantly on the move, eating little and burning the fat stores they built up in spring through early fall. They can lose 25 percent or more of their body weight, leaving them a shadow of what they were in September. When rut winds down, winter is at the doorstep, and bucks eat all they can to rebuild the fat stores desperately needed for winter.



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If good quantities of high-quality food are available, bucks can pack back on some winter life support. But if not, or if winter hits early and excessively hard, bucks can go into winter weaker than a 2-year-old doe. Actually a 2-year-old buck will likely have a better chance of surviving than a 4- to 5-year-old buck. An older buck will likely rut longer and harder than a younger buck, expending more of what they need to make it through winter. You can find evidence of how much body condition can decrease in a mature buck by comparing the carcass of an early bow-killed buck versus a late-season buck. The early bow buck will have thick fat along its back, but a late-season buck might have nothing more skin, muscle, and bone.

WHAT CAN YOU DO ABOUT IT?

You can't stop cold winter weather or determine how long it sticks around, other than moving to southern Florida. But you probably can't take the deer herd with you. You can, however, do some things to help with the elements — specifically wind. Certain types of trees and bushes can offer increased thermal protection. In southern Iowa, we have red cedars, which are considered a weed by most people, especially farmers. They spread like weeds, and in a few years can completely take over a pasture or field, damaging the soil and crowding out other plant species while providing little to no food for wildlife. It would seem eradication would be the appropriate management practice, and if you're focused only on food, it would be. But cedars provide excellent thermal protection. Even in the dead of winter, they retain their needles and can block icy winds, especially in large clumps or patches. Therefore, some cedars on a property will go a long way to help protect deer and other wildlife from winter's cruelty. In other parts of the country, other plant, bush or tree species can provide thermal protection.

The second management tactic for helping deer survive winter is to provide them as much food as possible, and it must be the right kind of food. Remember, after frost hits, plants stop growing, and whatever food is pro-

duced is what's available for winter. Planning for that begins long before the first day of sweatshirt weather. In fact, you should plan and plant winter food sources during spring and summer.

First, it's important to have adequate amounts of high-quality food in the spring, summer and early fall for deer to enter winter in good condition. When bucks enter the rut in better condition, they'll be less run down afterward. The more food available right after the rut, the better chance bucks have to restore body condition. To accomplish that, I make sure deer have a high-producing perennial, such as Imperial Whitetail Clover, which produces tons of high-quality, highly nutritive food. That's in combination with selected annuals that provide food in late summer and early fall, such as Imperial Power Plant and Whitetail Forage Oats.

Next, I focus on the food that will be available to deer when snow starts to build up. Brassicas are a good choice to fill that need, as they tend to produce lots of tonnage that sticks above the snow or can be dug up by deer. Further, brassicas are typically high in energy-supplying carbohydrates. Tuber varieties such as turnips provide a food source deer can extract and consume. In terms of quantity, more is better. Remember, whatever is there is finite, and more won't miraculously grow during the depths of winter.

If you want to nerd out on your food plot management scheme, estimate the total number of deer on your property, come up with a consumption level and calculate what you think the total pounds or tons of food consumed will be during winter. For example, if you think you have 30 deer on the property, their average weight is 170 pounds per animal and that deer will eat 3 percent of their body weight per day (it's actually probably less in winter, but that will help to overestimate), you can calculate food requirements. Each deer will eat about 5 pounds per day. Multiplied by 30 deer, that's 150 pounds per day. Say you want to provide winter food from December through March, which is 121 days. Multiply 150 pounds by 121 days, which gives you 18,150 pounds required. If your food plot pro-

duces 3 tons of winter forage per acre, you need to plant about 3 acres to meet that need. We're dealing with estimates, not exact figures, to use as a guideline. Deer might consume less per day than the figures in that formula, and there might be food sources other than the food plot. The key is that something is better than nothing, and anything you can produce to provide food during winter will help to improve survival.



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