

Winter Habitat for Wild Turkeys in the Northern Range

Wild turkey restoration has been a huge wildlife success story. While trap-and-transfer efforts of wild turkeys in most states are no longer needed or almost complete, it will remain a high priority to maintain the habitat necessary for wild turkeys to continue to be an important resource. Even if habitat, predation and hunter harvest rates remained unchanged across the landscape over time, which is not realistic, turkey populations would still fluctuate from year to year based on annual nest success and poult survival.



Photo courtesy of Nancy Brandt - National Wild Turkey Federation

Young turkeys that survive the precarious first couple of weeks typically realize higher survival rates, winter conditions become another hurdle. It was once thought that the limits of turkey expansion would be hampered by frigid winters of northern states. However, landscape changes over the last few decades combined with the ability to adapt have resulted in turkeys being found in areas previously thought to be too harsh. Biologists and other turkey enthusiasts began to realize that cold winters were not the deterrent to turkeys' survival that was originally thought.

Wild turkeys are very resilient in different weather conditions and landscape features, and if the food sources are available in winter, they typically survive extended periods of extreme cold and snow. Snow hinders turkeys' abilities to survive when it does not have a crust layer on top for them to walk on. This layer allows them to access low-hanging fruit trees as well as shrubs in conditions when they cannot feed on seeds and other foods buried under deep snow. A foot or more of deep powdery snow greatly decreases turkeys' ability to survive because they are unable to efficiently walk. However, turkeys have the ability to remain on the limb for over one week if they are in good condition during prolonged periods of deep powdery snow.

The declining number of farms in the northeast emphasizes a need for other outdoor enthusiasts to improve conditions for turkeys, grouse, deer, woodcock and other species. As farms are abandoned, over-wintering wildlife lose important waste grains and standing crops left unharvested by farmers. Abandoned farmland will also revert to mature forests unless fields are mowed to set back succession. Northeastern states are in need of openings and young shrub habitats. These young forests provide a host of fruit bearing trees and shrubs that provide quality fall and winter food sources and are also dense enough to provide good cover for many small birds and mammals. Wildlife that require those young forest habitats are declining rapidly because as forests age, the shrubs that are needed for food and cover are replaced by mature trees with an open understory that provide little cover.

Because of these trends, it has become increasingly important for northeastern landowners to actively manage their lands for wildlife in an effort to offset the loss of waste grains and fruit producing trees and shrubs for over-wintering wildlife. In many cases, purchasing a piece of property and not doing any active management can be very detrimental for wildlife and the health of the forests and fields. Landowners and turkey enthusiasts can help their winter turkey flocks survive periods of persistent deep snow. Creating food plots and actively managing forests and shrub habitats are important activities that should be considered.

Before providing ideas on how to improve your habitat for wild turkeys in the winter, consider some of the highlights from research that has been conducted on winter turkey survival and the value of different food sources:

- During periods of deep and persistent snow, juvenile hens were the most susceptible to dying compared to adult hens. Adult hens store more fat and their slightly larger body size helped them survive. Adult males survived best, as they were larger than adult hens and store more fat reserves. They also have larger body mass.
- Food sources found on or near the ground, such as acorns and corn, had three times the energy available for turkeys compared to soft mast (dogwood, high-bush cranberry, etc.) and seep diets where insects and other invertebrates are found.
- Birds using corn food plots showed no weight loss, and mortality was less than 10 percent of the population. Corn food plots during low snow years did not significantly impact turkey populations compared to populations of turkeys without access to corn food plots. However, during winters of persistent deep snow, birds relying on natural food sources showed substantial weight loss, and mortality exceeded 60 percent.
- Severe winters can reduce nesting success by affecting the weight and health of hens entering the breeding season the following spring.
- Turkey flocks with winter roosting locations near food sources had higher survival rates compared to turkey flocks that had to travel longer distances for food sources. Lengthy travel expended critical energy stores and exposed birds to higher rates of predation.

When considering food plot placement and design, take into account winter roost site locations and place the plot as close the roost area as possible. During winter, turkey flocks will usually be found on south-facing slopes because the exposure to sunlight. Conifer stands, particularly hemlock, are preferred because some of the falling snow gets caught by the dense tree limbs and limits the amount of snow on the ground that turkeys need to travel through. Where you find south facing slopes with conifer stands nearby a food source such as standing corn, apple trees and other shrubs still holding fruit and/or spring seeps where seeds and other vegetation are still available, you have a good chance of finding turkeys.

Not everyone will have the option of creating food plots for over-wintering wildlife. Even if you do have that ability, it is also important to inventory the mast producing trees and shrubs on your property. Many properties contain wild apple trees that may or may not be in good condition. Finding and identifying the condition of these trees will allow you to develop a game plan to do some maintenance to those trees that need it. If your apple or other fruit producing trees are being shade-out by trees nearby that have limited wildlife value, consider removing those trees to increase the amount of sunlight reaching the apple tree. This process is called 'releasing' and will lengthen the life span of the tree being released and should increase fruit production over time. If you identify fruit producing trees that are in good shape, take notes about their location and mark them on a map and visit them routinely to determine when they may need to be released or pruned. A good aerial photo your property can be an excellent way to mark the location of food plots, fruit trees, tree stands, etc.

While walking your property, take note of spring seeps and what the conditions are in the area. Take note of whether mast species such as oak, beech, cherry, etc. are adjacent to seeps. If limbs from mast producing trees in the canopy hang over seeps, maintain that condition and make sure heavy equipment stays out of the seep. Acorns, beechnuts and other seeds consumed by wildlife will be available within seep areas when snow is on the ground because the warmer groundwater percolating to the surface will keep snow from accumulating in the seep. Protect these seeps from road-building and heavy equipment during timber harvest operations.

While winter may be tough for turkeys and other wildlife, good management of habitat will ensure a solid future for turkeys. Addressing winter habitat issues has been identified in each northeastern state's North American Wild Turkey Management Plan. NWTF chapters will continue to raise money at local Hunting Heritage Super Fund Banquets to assist with habitat improvement projects.

Please consider joining us at one of our banquets. The more people we have attending our banquets, the more funds we will raise and the more good we can do for turkeys on the ground. Contact the NWTF at 1-800-THE-NWTF or visit www.nwtf.org to learn more and to join our flock.