

Keep Hay Bales Dry This Winter



Photo courtesy of Kansas State University Research & Extension

“This winter, keep hay bales away from moisture to prevent nutrient loss and spoilage,” says Bruce Anderson, Ph.D., hay and forage specialist, NU/IANR.

Bales soak up moisture from ice, snow, and rain, and when the water drains, the nutrients also escape. An average hay bale loses about one-fourth of its original nutrients during winter storage, but the loss can be reduced to 10 or 15 percent.

Moisture also causes hay to spoil.

Avoid stacking bales or laying them side-by-side, or moisture will gather in the crevices instead of draining. Set round bales end-to-end to minimize spoilage.

Location is another factor. Bales set along the north sides of buildings dry slowly, and bales set in east-west rows get snow drifted on their south sides. Line

up bales in north-south rows so they’ll get fewer drifts, and the sunlight and prevailing winds will dry the bales more quickly.

As snow melts, it soaks into bales and makes the ground muddy. Place bales on high, well-drained ground so water drains away from them. Crushed rock, railroad ties or pallets also keep the bottoms drier and make the bales easier to transport. (DJ)

Acreage Insights



Watch Out at Rural Railroad Crossings

Several people die each year in train and car collisions — unintentional incidents are almost always preventable.

Most of these collisions occur at rural railroad crossings where there is no crossing bar preventing the vehicle from proceeding or flashing lights warning of oncoming trains. Most rural crossings only have signs and therefore, it’s up to drivers to be conscious of their surroundings.

Many rural drivers get complacent with familiar crossings and forget to look before driving through or attempt to beat the train. Train-vehicle collisions often are fatal to those striking or struck by the train.

Drivers should stop, look, and listen at every railroad crossing to determine if a train is approaching. Especially if there’s low visibility, drivers should roll down the window and listen for an oncoming train’s warning horn.

When stopping or waiting for a train to pass, vehicles shouldn’t pull right up to the tracks. Drivers should stay back at least one car length.

Cars can stop for oncoming trains, but since trains weigh much more, they can’t

stop in time to avoid a collision with the oncoming car.

Drivers need to be patient and alert when approaching all railroad crossings. (DJ)



Riparian Areas for Wildlife

Riparian corridors (i.e., rivers, streams, and adjacent lands) are particularly valuable habitats for wildlife. This includes many of what are ordinarily thought of as “upland” species as well as wetland species. For example, many upland animals need access to rivers and streams for hunting and drinking, particularly in the winter when other water sources may be frozen over.

The junction between rivers, streams, and adjacent riparian land is especially high in ecological diversity and biological productivity because gravity is constantly moving energy and matter along with the current and because so many animals spend their lives both in water and on land.

The high value of riparian areas as wildlife habitat is also due to the abundance of water combined with the convergence of many species along the edges and ecological transition zones between aquatic/wetland, aquatic/upland, wetland/upland and river channel/backwaters habitats. Interaction between rivers and riparian lands helps create and maintain a high level of habitat diversity

Vegetation (whether living, decaying or dead, standing or fallen) plays a key role in the function of riparian areas as suitable wildlife habitat. Stream-side vegetation provides food and shelter for many species. Wildlife foods (seeds, buds, fruits, berries, and nuts) are found in abundance within naturally vegetated riparian areas.

The shade, detritus and coarse woody debris provided by streamside forests are very important for healthy fisheries, which are in turn a key food for many wildlife species. Leaves, branches, even whole trees uprooted by the river or other natural forces become food and shelter for aquatic organisms and the many forms of terrestrial wildlife inhabiting riparian areas.



Photo courtesy of USDA Agricultural Research Service

Riparian corridors have high value as to wildlife habitat.

Logs falling into streams often divert stream into new pathways, increasing the complexity of the channel, which helps to maintain a diversity of habitat niches for riverine plants and animals. Last but not least, some wildlife inhabiting riparian areas, through their actions, create habitat for wildlife species (beavers are the best known example of this locally).

Another characteristic of naturally vegetated riparian areas of particular value to wildlife is their connectivity function. River and stream systems are key elements of our state’s ecological infrastructure. Besides serving as important dwelling habitat per se, undeveloped lands along river and stream corridors provide vital connective lifelines that enable wildlife movement necessary to maintain healthy wildlife populations.

Loss of these connective corridors results in habitat fragmentation, a major cause of wildlife decline and even extinction. For example, many species of reptiles, amphibians, and mammals need the ability to disperse to new habitat to set up new territory for successful feeding and breeding. This allows for the continuous exchange of genetic material

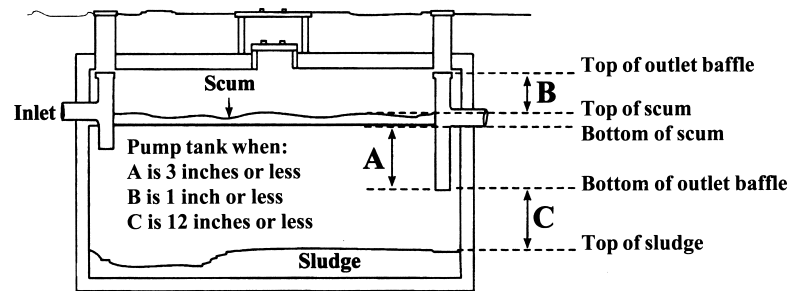
between species populations, a critical factor in maintaining species’ resilience to disease and other adverse impacts.

It is key, therefore, to maintain undeveloped and naturally vegetated corridors between habitats of a sufficient width to enable animals to travel safely by land from one habitat to another. Allowing habitats to become isolated “islands” surrounded by development will cause them to lose much of their ecological value even though the habitat itself is not directly impacted.

Connections to uplands within and beyond the riparian area also perform vital ecological functions and need to be preserved as much as possible.

Many species of amphibians rely on riverine habitat during the breeding season and then spend most of their lives in upland habitat, often at a considerable distance away. The reverse is true for many reptiles. Protecting riverine wetlands will not in itself safeguard the continued existence of the full habitat these organisms need. Protecting access to undeveloped uplands associated with adjacent rivers, therefore, is key to maintaining a healthy functioning ecosystem. (DJ)

Pumping Key to Septic System Maintenance



Measurements to determine if a septic tank should be pumped.

Many rural Nebraskans are familiar with using septic systems for wastewater treatment, and these on-site systems are effective — if they’re managed properly and pumped regularly. Without pumping, the drainfield can become clogged and wastewater doesn’t get treated.

In a septic system, wastewater flows from household plumbing into an underground tank, where waste components separate. Heavier solids settle on the bottom and form sludge, and lighter solids form a layer of scum on the surface. Bacteria partially decompose and liquefy some solids, and the liquid flows through the outlet to the drainfield. If the tank isn’t pumped regularly, sludge and scum accumulate in the tank and will enter the drainfield.

Most experts recommend pumping a septic tank every two or three years, but the frequency may vary depending on the number of people living in the home, water usage, and whether a garbage disposal is used. To be safe, have the tank inspected annually until a professional

determines pumping is required. Once the pumping interval is established, use it as a guideline until usage patterns change. Additional people living in the home, children becoming teenagers, or the addition of a whirlpool tub will increase wastewater generation.

Hire a reputable person or company to inspect and pump the tank. A professional will measure the depth of the sludge and scum layers and use specific guidelines to determine if the tank needs to be pumped. A good pumper will pump wastewater through the manhole or access port, not the inspection pipe, and will make sure equipment is working properly. Most importantly, a professional will dispose septage from the tank safely and legally.

For more information, read future articles in this series, or consult NebGuide G01-1424-A, “Residential On-Site Wastewater Treatment: Septic System and Drainfield Maintenance,” available at Cooperative Extension or online at www.ianr.unl.edu/pubs/wastemgt/g1424.htm. (DJ)