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*Acreage Living is published monthly. Please share it with your acreage neighbors. Call your local ISU Extension Office for more information or contact an ISU Extension staff member listed below to suggest topics for future articles.*

*Editors:*

*Paul Brown*

*Assistant Director  
Ag & Natural Resources  
Extension  
[pwbrown@iastate.edu](mailto:pwbrown@iastate.edu)  
(515) 294-7801*

*Shawn Shouse  
Extension Field Specialist  
[sshouse@iastate.edu](mailto:sshouse@iastate.edu)  
(712) 769-2600*

*Designer:*

*Paulette Cambridge  
[paulette@iastate.edu](mailto:paulette@iastate.edu)  
(712) 769-2600*

## Keeping Companion Animals Safe

*By Claudia J. Baldwin, ISU Associate Professor of Veterinary Clinical Sciences; Director, Maddie's Shelter Medicine Program*

Stray domesticated animals on rural properties is a problem most of us encounter. How we approach and deal with stray dogs and cats differs, as the species and their interactions with humans can be very different. Dogs and cats may wander onto our property because they are lost, looking for water or food, or looking for mates. As a general rule, feeding our own animals in secure sites and not leaving food out for other domestic and wild animals can be very helpful.

Children should be taught to keep a distance from stray animals to avoid the possibility of bite wounds. Kittens can be extremely enticing but can be easily frightened, resulting in scratches and bites. It can be difficult to differentiate a frightened stray or lost pet from a feral dog or cat. Animals straying onto our property may be very friendly and even have visible identification tags. Adults may then be able to call a dog or cat to them and find the phone number of the owner or veterinary clinic (number on rabies tag) on a collar to facilitate returning the pet. More animals now are microchipped and may have a tag on their collar with a phone number to call. The microchips require a scanner to read the number on the microchip, which is implanted under the skin. Your local veterinarians, animal shelters and animal control units may have a scanner to help with identification.

Do not approach dogs and cats that run or cower. Avoid excessive handling of any dog or cat, such as picking them up, to avoid scratches and bites. Keeping our own animals away from strays is important as well to avoid injury or transmission of disease. Protecting livestock from stray dogs can be challenging. Contract your local animal control.

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A phone tree in the neighborhood has been very beneficial to us in getting pet animals home. Additionally, when stray animals appear, telephone calls to local veterinary clinics, county or city animal control and shelters to report them is essential. You may find that a lost dog or cat report has been filed and a found report will be taken by the clinic or agency. Also, check the lost and found ads in the local paper, and posting of lost signs in area stores. All of these efforts may help the animals find their way back home.



Animal control agencies may serve your area and pick up stray animals. They may offer specific instructions on trapping of feral cats. Unvaccinated animals can carry rabies virus, which can be transmitted to people by bite wounds. If a bite should occur, the animal must be caught and quarantined. Animal control should be contacted for assis-



tance and a human physician should be contacted.

Dogs and cats should be vaccinated for rabies for their own protection and the protection of humans and other animals. Other immunizations your veterinarian will recommend and administer will also serve to protect them when they are in contact with other animals. Neutering (spay and castration) of pet dogs and cats will keep them from straying to find mates and is highly recommended. It will also help to decrease the births of puppies and kittens that may end up homeless and add to the problem.

Confining our own animals is also recommended to prevent them from straying. When not supervised on the property, dogs should be confined in fenced areas. Invisible fencing using underground current, matched with a dog collar with a sensor, is effective in keeping dogs from crossing the invisible line of con-

finement. In my own rural area, five of the six closest properties have dogs and all but one use visible or invisible fencing to keep their dogs safe at home. Traditional fencing has the advantage of keeping stray dogs away from those on the farm.

Confinement of cats is much more difficult and for many of us, cats serve as pets and provide rodent control on the farm. Pet cats confined indoors have a significantly longer life-span. Farm cats housed out of doors cannot be completely protected from stray dogs and cats. Providing lodging for the farm cat for retreat is essential. Farm cats should also be vaccinated, treated for fleas and other parasites, and neutered. In Iowa and surrounding states, the numbers of stray and homeless cats and kittens climbs yearly. Neutering of our companions is extremely important so we do not further contribute to the stray population.

The Web sites below give more information on keeping companion animals safe and how to manage stray pets.

[http://www.cfsph.iastate.edu/Zoonoses\\_Textbook/Assets/dog\\_bite\\_prevention.pdf](http://www.cfsph.iastate.edu/Zoonoses_Textbook/Assets/dog_bite_prevention.pdf)

<http://www.cfa.org/articles/legislative/who-owns-my-strays.pdf>

<http://www.vetmed.ucdavis.edu/CCAB/strays.htm>



## Be a Smart Hay Buyer

By Dan Morrical, ISU Extension Sheep Specialist

Many acreage owners are faced with purchasing hay for their animals. Cows, sheep, goats and even horses can get most of their daily nutrient needs from quality hay.

When evaluating hay for purchase, the best method is based off a laboratory test. Most labs are running tests with NIRS (near infrared spectroscopy) equipment. It is cheaper and faster than wet chemistry analysis. Lab test results will list moisture, crude protein, energy and some minerals. Energy values are expressed as digestible energy (DE), total digestible nutrients (TDN) or net energy for maintenance (NEm). The higher the values the better, with most hays running between 50 and 60 percent TDN. Many hay auctions have hay analysis available, especially if the auction caters to dairy operations.

If laboratory analysis is not available, hay evaluation is generally based on color, leafiness and fineness of the stems. Grass hay with seed heads present indicates it was first cutting and that the hay may have been pretty mature when cut. As forage matures it contains less energy and less protein. Legume hays, such as

alfalfa and clover, have higher crude protein levels than grass hays. This higher protein level is generally not needed unless the hay is being fed to really high producing animals.

In most cases, buying hay by the ton or on a weight basis is the best method of purchase. Bale weights vary and generally are overestimated by both the seller and buyer. Extremely heavy bales might be an indication the hay was baled too wet. Wire tied bales are much heavier because they can be packed much tighter in the baler chamber.

Prices for hay tend to follow their quality as determined by subjective methods of visual appraisal or objective methods via a laboratory analysis.

The key for hay buyers is to buy the quality of hay that matches your animal's needs. Horses with minimal work loads can consume average hays and stay in good condition. Nursing mares or horses under heavy training will need higher hay quality and supplemental concentrate to maintain condition.

Animals do not have nutritional wisdom. Let me repeat: animals do not have nutritional wisdom when it comes to consuming only the amount of hay that meets their daily needs. If given the opportunity, they will eat more and be-

come over conditioned (fat). This is very often the case when animals are considered pets rather than livestock. Full feeding super high quality hay to your pet goat keeps the goat fat and sassy but also leads to a lot of wasted hay. This hay becomes mixed with manure and becomes very expensive natural fertilizer for the garden or farm fields.

The decision that needs to be made is to buy super fancy hay and limit feed it or buy average hay and feed more per head per day. Full feeding hay of any type generally results in more waste. Use of hay rings or other feeders is very critical to limiting waste to 15 percent or less. Full feeding (i.e. letting them have all they can eat) will result in up to 50 percent waste even with the highest quality hays.

There are many excellent extension publications on feeding livestock that can be acquired on the web or through your county extension office. Becoming a knowledgeable animal owner on the nutrient needs of your animals and then buying hay that meets those needs can save a lot on the annual feed bill. If you cannot find hay of adequate quality, then feeding less hay and adding more supplemental feed can also meet your animal's requirements. This can be a cheaper feeding program that also results in less waste to haul every spring. With limited

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amounts of hay offered, animals can be as finicky and will consume a higher percentage of the hay offered.



Hay prices are generally much cheaper during the summer

months than the winter. Developing a feeding plan and calculating the year-round needs for the animal enterprise facilitates purchasing the amount needed during the summer when prices are the lowest.

Hay will lose roughly 10 percent of its dry matter during storage. Bales stored outdoors may lose 25 to 50 percent of the dry matter. Storage indoors is the best approach to limit storage loss and stretch the hay dollar. Big round

bales should be stored on pallets or old tires to reduce rotting at the bottom of the bales. Even large rock or telephone poles can make a suitable base. Net wrapped bales also have 10 to 20 percent less storage loss compared to twine wrapped bales. The last aspect of storing big bales is to place them butt to butt as tight as possible to minimize weathering on the exposed surface. Rows should be at least five feet apart to allow ventilation and insure rows do not touch once hay bales squat down.

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## Protect Rural Wells from Flooding

By Tom Glanville, ISU Professor Ag & Biosystems Engineering

Coliform bacteria are the most common health-related drinking water pollutant found in rural wells. According to the University Hygienic Laboratory, about 35 percent of the private water well samples submitted for testing in recent years have tested positive for coliform bacteria. Much of this is generally believed to be due to poor well construction or maintenance, not to widespread bacterial contamination of groundwater found at recommended well depths (50 feet or greater - depending on local geology).

One of the ways coliforms enter a well is through the wellhead when it is submerged – a situation that occurred more frequently than

normal in Iowa this year due to widespread flooding and saturated soils. Although properly constructed wells have tight fitting caps that prevent entry of dirt, insects and rodents, well caps are rarely water tight. In fact, most well caps include a screened vent or “breather” to prevent a vacuum from forming inside the well when it is pumped. If the wellhead becomes submerged the vent allows contaminated water to enter the well.

Wells are at risk of being flooded when located in low-lying areas subject to heavy runoff, or if they are constructed inside a subsurface frost pit. Modern well construction regulations prohibit

construction of new wells inside frost pits, but many older wells throughout the state are still located inside pits. During wet weather, when soils are saturated and water tables are high, leaky pits can fill with water. The solution to these problems is to contact a certified Iowa water well contractor and arrange to have the well casing extended.

Figures 1 and 2 illustrate how a well located inside a frost pit can be extended to prevent flooding. In this situation, new well casing is added to the original, extending the top of the well to at least one foot above ground, or above known local flooding levels. A special fitting, called a pitless

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adapter, is added to the well so water can be discharged through the casing sidewall below frost line. Pressure tanks and other equip-

ment are relocated to a nearby basement or heated building, the pit roof and walls are removed, and the hole is filled with compacted subsoil. Procedures are

similar, but less complicated, for wells that terminate above ground, but that do not extend sufficiently above local flooding levels.

Additional Information: ISU Extension Publication PM 840 Good Wells for Safe Water  
<http://www.extension.iastate.edu/publications/PM840.pdf>

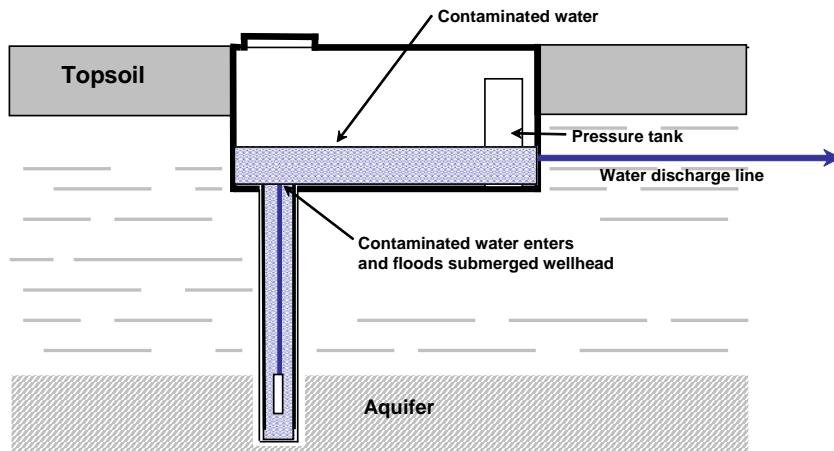


Figure 1. Flooded frost pit and well

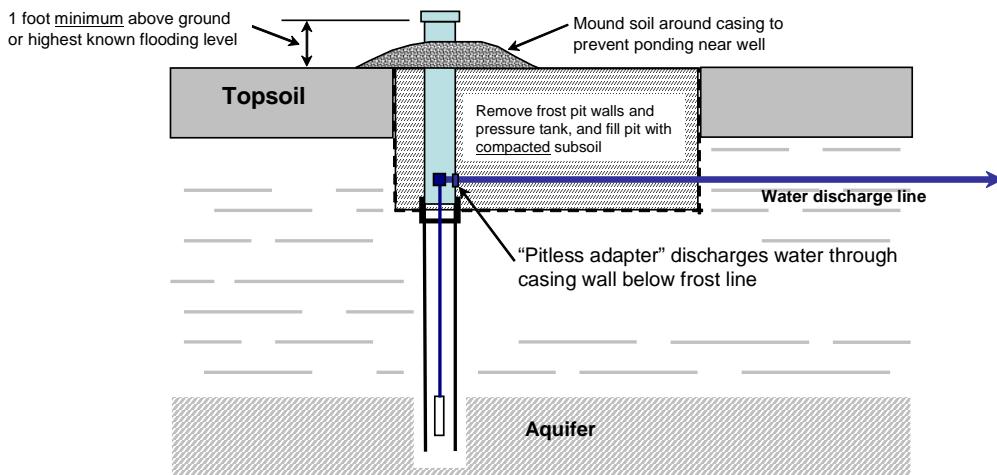


Figure 2. Frost pit removed and casing extended to prevent well flooding and contamination.

**... and justice for all**

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