

## **Non-ambulatory (Downer) Animals Frequently Asked Questions**

As a result of recent ruling by the U.S. Department of Agriculture, non-ambulatory (downer) cattle will no longer be allowed into the food supply. This ruling has caused concern among dairy and beef cattle producers with respect to how they now handle those animals on their farms which have the potential of becoming non-ambulatory and those which have become non-ambulatory. The following questions and answers have been compiled to help producers learn more about their options when handling this type of animal.

### **How do I identify animals most likely to become non-ambulatory (down)?**

Those animals which have become lame or weak due to age, injury, or illness are those animals most likely to become non-ambulatory (down). These animals will become thin in body condition due to their inability to secure forage and compete with other animals for feed. Animals which also have difficulties calving have the potential to become non-ambulatory due to paralysis. To learn more about how to manage to minimize the risk of non-ambulatory animals contact your County Extension Agent or visit the Agricultural Extension Service at <http://www.utextension.utk.edu>.

### **What are the state laws/regulations regarding the disposal of downer animals?**

State law/regulations do not provide guidance as to methods of disposal of downer animals. Below is the actual text of the state law which pertains to disposal of dead animals.

#### **TCA 44-2-102(6)**

The commissioner and the state veterinarian have the general supervision of all animals within or that may be in transit through the state, and they are empowered to:

(5) Order the destruction and sanitary disposition of any animal, whenever, in the

opinion of the state veterinarian, the interests of the state are best served by the destruction of such animal. Such destruction may be ordered only for control of any animal disease for which the state has a control program, or for any animal disease not known to exist in the United States;

(6) Order the sanitary disposition of any dead animal. The owner of such animal shall be liable for its disposition;

### **What are my options for disposal of an animal which becomes down on my farm?**

Animals should be disposed of within 24 hours of death.

Burial is the most often utilized method of disposal of dead animals. There are some best management practices which are recommended when using this method. The lowest point in the burial pit should be no more than 6 feet deep in a moderately well-drained to excessively well-drained soil. Groundwater should not be able to enter the burial pit. Avoid wetlands, floodplains or areas along a stream bank. The burial pit should be at least 100 feet from any well and surface water. Also, carcasses should be initially covered with at least 6 inches of soil and ultimately with at least 30 inches of soil.

Rendering is a method of disposal which

recycles the remains of dead animals into other products. The lack of rendering operations in the state makes this option limited to only a few areas due to the need to promptly transport or preserve the carcass prior to transport to the facility. There are no rendering facilities which accept cattle in East Tennessee. Since the announcement of a single case of BSE in the U.S., new regulations have been put into place for rendering operations. Such regulations have limited the types of carcasses rendering operations accept. Included in this fact sheet are a list of rendering operations in the state. You will need to contact the operation in your area to learn more about what they are able to accept for rendering and possible pick-up. A few counties pay the rendering company an annual fee for pick-up of dead animals.

Composting is using the natural decomposition process and accelerating it by the addition of organic waste materials to generate heat. In the state of Tennessee, permits are not required for on-farm composting operations where the compost is considered to be part of normal farming operations and used on the same farm as part of agronomic or horticultural operations. Although this option has been used in the poultry and hog industry in Tennessee, there has been little use of composting in the cattle industry. There are educational resources available which can help a producer learn more about how to begin an on-farm composting operation listed later in this publication.

Cremation is an alternative method of disposal of a dead animal which can be very energy intensive. When using this method, the proper permits and following of local regulations are required.

When the cause of death of an animal is not

known to be from injury or a known illness, one alternative is to allow a diagnostic lab to determine the cause of death. The producer is responsible for transporting the animal to the lab; the lab will dispose of the animal after testing.

### **Where can I find a list of rendering operations in my area?**

- **National Renderers Association**  
([www.renderers.org](http://www.renderers.org))
- **Griffin Industries, Inc.**
  - **Headquarters**  
4221 Alexandria Pike  
Cold Spring, KY 41076  
(859) 781-2010
  - **Rendering plants**
    - 2027 River Road  
Union City, TN 38261  
(731) 885-9361

### **Can I have a downer animal processed at a custom plant and have the meat for home use?**

Based on the recent ruling, this will no longer be allowed. This ruling applies not only to animals which have previously been allowed to be processed at Federally Inspected meat packing plants, but also to plants which are called “custom exempt.” These are plants which custom process animals, but cannot process animals from which the meat is for resale. The U. S. Department of Agriculture Food Safety Inspection Service periodically inspects these “custom exempt” plants to insure they are not processing beef for resale. They have declared that these “custom exempt” plants can process no downer animals.

### **How can I prevent an animal from becoming down on the farm?**

In the long run, managing to decrease the number of non-ambulatory animals is the best method to avoid or at least decrease the occurrence of such animals. Dairy and beef cattle specialists from the University of Tennessee have information available to help producers learn to manage to reduce the incidence of non-ambulatory animals. Contact your County Extension Agent or visit the Agricultural Extension Services web site at <http://www.utextension.utk.edu> to learn more.

### **If an animal becomes down on my farm, how can I humanely euthanize the animal?**

Although it is an unpleasant issue, euthanasia of non-ambulatory animals is sometimes necessary. The proper procedures must be followed to effectively, efficiently and safely euthanize an animal to minimize uncontrollable suffering of the animal. To learn more about when euthanasia is necessary and the proper procedures to euthanize an animal, contact your County Extension Agent and request the publication "Procedures for Humane Euthanasia" from Dr. J. K. Shearer and Dr. Paul Nicoletti from the University of Florida College of Veterinary Medicine. You can also obtain the publication from the Agricultural Extension Services web site at <http://www.utextension.utk.edu> .

### **Where can I find more information about disposal of downer animals and especially composting?**

- University of Tennessee Agricultural Extension Service  
<http://www.utextension.utk.edu>
- Iowa State Beef Center  
<http://www.iowabeefcenter.org>

## **Reducing the incidence of non-ambulatory dairy cows**

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1. Maintain a well-balanced ration and especially encourage adequate dry matter intake in transition cows and recently fresh cows. Work to minimize metabolic disorders. Observe cows regularly during this transition period and segregate any cows to a comfortable area where they can easily lay down or move around on their own. Keep cows in good body condition. Cows that are too fat will have reduced dry matter intake right after calving.
2. Utilize calving ease sires, especially in heifers, to reduce dystocia. Consider using Jersey AI bulls or Scandinavian Red AI bulls on Holstein heifers.
3. Do not get heifers too fat at calving but make sure they are adequately grown for calving. A body condition score of 3.5 is probably ideal. Body condition scores of 4.0 or above indicate heifers are too fat and can result in calving problems.
4. Use care in assisting cows that are having distressed labor. Careful use of calf pullers is essential. Make sure cows do not lay too long in one position at calving. Do not intervene in calving too quickly. Consulting your veterinarian for an evaluation may be beneficial when dealing with a cow having difficulty calving in order to avoid dysplasia.
5. Groove or otherwise make concrete surfaces less slippery. Try to keep concrete areas as dry as possible. Consider using rubber in high traffic areas. Create traffic movement areas that have limited sharp turns.
6. Try to provide cows access to dirt or vegetative lots or pasture as much as possible. Cows on pasture much of the time have fewer health problems. Pure pasture systems like in New Zealand have cows that survive twice as long as dairy cows in conventional systems.
7. Keep hooves of dairy cattle in good shape by trimming and proper ration balancing. Be diligent with cows that start to develop a hoof problem. Do not assume that the problem will cure itself in a few days. Pay particular attention to fiber in the ration. Minimize the use of byproduct feeds that have low fiber contents and produce acidosis. Include 2 or more pounds of long stem hay per cow per day in total mixed rations.
8. Let yearling heifers have access to concrete areas so they can learn to move on concrete before they calve the first time. Prior experience on concrete surfaces helps heifers adapt when they calve. Heifers can be easily injured if they are thrust onto concrete surfaces with swollen udders. Dominant cows can also injure new heifers more easily if they are not familiar with concrete.
9. Ensure that recently fresh cows are housed in areas with good footing and where competition for feed and water is reduced. Loose housing may be desirable for recently fresh cows if the loose housing environment is well maintained.
10. Use handling methods that allow cows to move methodically with little excitement. Avoid "frightening" cows or abusing cows to get them to move rapidly. Be patient when handling or moving cows.
11. In the long run, breed for cattle that have improved longevity. Select for improved health, calving ease, improved feet and increased productive life. Use good AI bulls

that are selected to improve these traits. Consider using good AI bulls in a crossbreeding program. Crossbreeding programs could involve using selected AI bulls from Holstein, Jersey, Brown Swiss and Scandinavian breeds in a rotation. Crossbred cows in New Zealand stay in the herd one more lactation than their purebred contemporaries in New Zealand.

12. Keep facilities, dry lots and pastures in safe condition. Remove any objects or repair any areas that might injure cows. Inspect cattle housing areas and heavy use areas regularly.

13. Remove high-risk cows from the herd before they become non-ambulatory. Cows with digestive diseases can sometimes be sold before they become non-ambulatory. Older cows that have had previous metabolic problems but recovered may be good candidates for culling.

### **Identifying Beef Cows “At Risk” of Becoming Downers**

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Since the federal ban on slaughtering “downer cows” for human consumption came about as a result of the BSE situation in Washington State, the question has come up “What do I do with ‘em?” In the “long-run,” this ruling should stimulate cow-calf producers to evaluate the profit potential, physical condition and age of beef cows more frequently. Potential downers should be culled and marketed while they are in a good physical condition and will be of greater value.

Carrying out management programs to keep the cattle in the herd mobile, healthy and productive are much better alternatives for both the cows and their owners. Returns to the cow-calf operation will be much greater compared to euthanasia and the problem of disposing of the carcasses.

According to Dr. Temple Grandin, of Colorado State University and an international recognized authority on animal welfare and behavior, 75 percent of the downer cows can be prevented through good management. What can cow-calf producers do in the “short run?” What can be done now, this winter? Probably the first step would be to evaluate the cow herd as well as management options as to risk of contributing to “downer cows.” With the stress that will be experienced the remainder of the winter, several beef cows will be “at risk” of becoming “downers” or dead.

Following are some current suggestions for consideration by cow-calf producers in identifying cows that are “at risk of becoming downers. Review these and take appropriate action.

**Cull Old Cows.** As cows mature, they develop physical problems such as arthritis, lose teeth and generally become “thinner.” As these conditions occur, the cows will also lack the aggression and strength to compete at the hay ring with the other cows. They will also drop to the bottom of the herd’s “pecking order.” With the cold winter weather, rain and limited feed intake, these cows will be at high risk unless either sorted from the herd and fed separately or marketed before their condition becomes worse.

**Evaluate Cow for Potential Lameness.** Lameness contributes to “downer cows.” Lameness cows become weak and “thin” in body

condition due to reduced ability to move about to secure forage and compete with other cows for feed. Arthritis and structural problems, as well as injuries, contribute to lameness. Maintaining facilities, fences and working equipment in a good state of repair as well as keeping pastures and pens free of objects that could cause injury are suggested practices. An animal injured during “working” could also become a “downer.”

**Manage to Reduce Calving Problems or Difficult Births.** Producers should carry out practices that reduce calving problems. Forty-six percent of downer cows were reported to be the result of difficult births. Frequently observe cows during the calving season. Do not permit the calving process to go on for an extended period. Consider providing assistance earlier than under normal conditions. Use “common sense” using calf pullers. Nerve damage during the calving process increases the probability that the cow will be a “downer.” In the long-run, selecting and using herd sires with appropriate birth weight EPDs as well as properly selecting, growing and managing replacement heifers will contribute to reducing the “risk” of downer cows.

Some other management suggestions that would aid in preventing “downer cows” during both the “short” and “long run” would include:

**Plan Safe Transporting of Animals** When transporting animals, neither overload nor underload the truck or trailer. The loading facilities, the truck or trailer should have “good footing.” Drive carefully and avoid sudden stops and starts. A cow that gets down and is injured on the way to the market has the potential to be considered a “downer,” at the market. Market operators will probably not accept cows that they conclude will not

withstand the stress of transporting and marketing and being mobile when reaching the slaughter house.

**Cull Aggressive Animals.** Animals that are aggressive toward others in the herd , especially toward older or weaker animals , should be culled. These animals will especially created problems for weak animals.

**Provide “Roughed” Surfaces Where Cattle are Moved.** Slick surfaces have the potential to cause the animal to slip, fall, “spraddle,” and become “downers.”

**Provide Adequate Nutrition to Cattle.** This includes energy, protein and minerals. Inadequate nutrition results in “thin” and weak cows that have reduced immunity and more susceptible to diseases and would have potential to be downers.

## Summary

The above suggestions should be of value to cow-calf producers in evaluating the risk of “downer cows” in their herds. Market “at risk” cows before further deterioration occurs and they still have value. At risk cows that can not be immediately marketed should be separated from the herd and provide management, health and nutrition programs to reduce the risk. Managing to prevent injuries and calving problems will also reduce risk. Without proper care and management, several beef cows may become “downer cows” before spring.

Either manage to keep them up and walking or market them. Proper culling and marketing of cull breeding stock can contribute up to 20 percent of the returns to cow-calf operations. Work to keep that percentage up.