

## Small Farm Series: Cattle Mortality Disposal Options in Tennessee

Justin Rhinehart

Extension Beef Cattle Specialist

UT Animal Science Department

Death loss is an unavoidable part of cattle production. Even the most intensely managed herds will experience occasional death loss due to predators, injury, disease or natural disaster. Proper disposal of the resulting carcass in a timely manner is important. Several options are available with specific benefits or limitations. For many years, rendering has been the easiest and least costly option. Unfortunately, that option has become limited due to more stringent regulation on tissues that can be included in the rendering process.

### Limiting Death Loss

The most logical way to manage carcass disposal is to avoid death loss. There are many management practices that maintain the health and well-being of cattle but some loss is inevitable. In that case the best plan is to market animals before they reach an age when sudden loss is more likely to occur. In fact, beef produced from cull cows and bulls is an increasingly more important product and sales from those animals make up an average of 15% – 20% of a beef cattle producer's annual income. A yearly evaluation of the cow herd should help to identify cows that have reached the end of their productive life. During this "annual review," check each of the following components:

- |   |  |
|---|--|
| <input type="checkbox"/> Eyes                       | <input type="checkbox"/> Reproductive Status |
| <input type="checkbox"/> Mouth                      | <input type="checkbox"/> Udder               |
| <input type="checkbox"/> Body Condition Score (BCS) | <input type="checkbox"/> Feet & Legs         |

One of the major issues to look for is the beginning signs of cancer eye. Most livestock marketers will not allow cattle with progressive stages of cancer eye to enter their market facility. Identify smooth- or broke-mouth cows. These issues can lead to poor body condition and immunity to guard against disease. Open cows are not profitable in commercial production and poor reproductive status can indicate other health issues. Poor udder structure, especially over-sized teats, often results in poor calf performance and health. Good feet and leg structure are critical because "downer cows" can absolutely no longer be marketed; they must be euthanized on farm.

Consider culling individual cows that fail to meet the suggested standards in any of these categories. Keeping them "just one more year" can lead to an increased need for mortality disposal options. More information on each of these culling criteria is readily available for the University of Tennessee Extension Service.

### Disposal Options

Mortalities can be greatly reduced by following strict culling guidelines. However, some death loss is unavoidable. When that happens and rendering is not an option, several other alternatives are suggested by the Tennessee Department of Agriculture in their "Policy Concerning the Disposal of Dead Farm Animals and the Disposal of Offal from Custom Slaughter Facilities." The policy statement explains

that livestock carcasses are considered solid waste and fall under the regulations of the Division of Solid Waste Management in the Tennessee Department of Environment and Conservation (TDEC). The approved disposal methods outlined by these agencies are: on-farm burial, composting, landfilling, burning and incineration.

For most, on-farm burial will be the easiest disposal method, relative to the other approved options, because it can be done without a permit. However, several regulations should be followed to ensure that ground water is not contaminated. According to TDA policy, the burial site should be: more than 300 feet from a well head, more than 165 feet from a property line or public area, more than 100 feet from state waters or wetlands and more than 2 feet above bedrock and the high water table mark.

Sending cattle carcasses to a Class I landfill is another approved option. A Class I landfill has specially designed liners that prevent solid waste from impacting the underlying ground water. While this is an approved option, accepting dead animals is left to the judgment of the landfill operator and some have declined to accept livestock carcasses. If access to these landfills is prohibitive, dead animals can be disposed of in a Class II or III landfill with written permission from the TDEC Commissioner.

The major issue with disposing of carcasses in landfills, or any other off-farm disposal option, is transportation. Carcasses should be moved in a covered truck with solid sides. The truck bed must also prevent fluid leakage.

Incineration and on-farm burning are also options when other disposal methods are not available. Similar to burial, on-farm burning for the disposal of livestock carcasses can be approved as an exception to TDEC air pollution regulations. Incineration in an approved incineration unit would be cost-prohibitive for most cattlemen. Transportation to the incinerator is still a concern that must be addressed.

As rendering regulations have prevented it from being a carcass disposal option in areas that have relied on it for years, it is important to consider these approved alternatives with feasibility and economics in mind. More importantly, adhering to carcass disposal regulations will ensure that cattlemen maintain a healthy reputation with consumers and policy makers.