State Notes

TOPICS OF LEGISLATIVE INTEREST

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Tagging Cattle: Mandatory RFID Tags in Michigan
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Introduction

On March 1, 2007, new State cattle tagging regulations went into effect, requiring cattle owners in Michigan to place radio frequency identification (RFID) tags on all cattle before they leave their place of origin. The required tags bear a unique 15-digit identification number, which can be read by electronic readers at close range. The program is similar to certain Federal guidelines issued under the National Animal Identification System, and is part of the State's ongoing bovine tuberculosis (TB) eradication project. Supporters of the program also hope that the identification system will inspire greater confidence in Michigan beef and reopen lucrative export markets in Japan and elsewhere. Many farmers, on the other hand, have complained vigorously that the requirement is an invasion of their privacy and an unnecessary expense, and will be no more effective in reducing the threat of disease or food-borne illness than current policies are. This article explores the history of and the debate over the new cattle tagging requirements in Michigan.

Tagging Requirement

The Animal Industry Act authorizes the Michigan Department of Agriculture (MDA) Director to develop, implement, and enforce scientifically based movement restrictions and other requirements, including official identification of animals for movement between or within zones established to control the spread of bovine TB in the State (MCL 287.709(8)). Before these requirements are issued, the MDA must follow certain procedures, which include publishing the proposed requirements in newspapers, and placing them on the Agriculture Commission agenda. Pursuant to this process, in December 2005, the Agriculture Commission approved a proposed zoning order to require, among other things, that all cattle be identified with an official RFID ear tag before being moved from premises in Michigan, unless exempted by the MDA director. The order was approved by the MDA Director on February 9, 2007.

Historically, cattle in Michigan have been marked with ear tags that allow farmers to identify individual animals and to distinguish their animals from those owned by others. The traditional ear tags are plastic or metal, bearing an identification number or sequence of letters that can be read visually. The new requirement replaces those tags with RFID tags that can be read by a radio frequency scanner. The scanners are effective from a maximum distance of about six feet, depending on the equipment used.

The cost is about $2 per tag, according to the MDA, and a hand applicator costs about $20. (The MDA notes that the applicators previously used to attach tags may not be used for the new RFID tags, because the new tags have a smaller pin, and the older applicators will destroy the tamper-evident features of the tag.)

In order to obtain the RFID tags, a livestock facility must register with the MDA and receive a premises number. Once registered, the owner may purchase tags through the MDA or authorized suppliers. Each tag is assigned a 15-digit identification number, which contains a

three-digit country code and is tied to the premises identification number, allowing it to be traced quickly to the animal's place of origin. Previously, RFID tags were issued in a portion of the State (as discussed below). These tags had a different numbering system, which was not standardized among the various suppliers. The new tagging system is designed to eliminate confusion and ease the establishment of a comprehensive database of registered animals in Michigan.

The information in the database will allow officials, if an animal is found to be infected with a virulent disease or is determined to be the source of a food-borne illness, to isolate the source quickly and effectively, potentially saving lives and limiting the spread of the disease. A rapid response also may limit the economic damage of an outbreak. In these ways, proponents of the new requirements say that the program will protect cattle owners and strengthen the cattle industry in the State.

The program will have other benefits as well, according to proponents. These include the ability of cattle owners to track their herds efficiently and easily, with a high degree of accuracy. The RFID scanners may be set up on the side of a cattle chute so that the ID numbers are recorded as the cattle move through, and that information can be downloaded directly into the producer's computer, with the proper equipment and software. The recorded information can be used to track immunizations or other particulars for each animal.

The ability to scan the numbers electronically also will prevent input errors and save labor. For small operations, less expensive handheld readers that perform similar functions are available, or the tags can be read visually if the owner prefers.

Although organizations such as the Michigan Cattlemen's Association and the Michigan Milk Producer's Association have expressed support for the program, many farmers have strong objections, for a number of reasons. Some have expressed distrust of governmental intervention and fear the consequences of a statewide database that could track all of the cattle statewide. These individuals claim that the program is an invasion of their privacy and an infringement on their right to conduct business and raise cattle as they see fit.

Others may fear the potentially devastating consequences if an infected animal is traced back to their herd, possibly requiring the destruction of a large number of animals and bringing significant financial hardship.

In addition, many small farmers have voiced concern that the program will benefit only large producers, while placing significant burdens on those who own smaller herds. They point out that the price of implementing the program could be extensive, far beyond the $2 per cow required to purchase the tag. Factoring in the cost of electronic readers, tag installers, software, and labor required to install the tags, collect data, and manage the information being collected, the program could be very expensive, particularly for small farmers. Some believe that the added expense and inconvenience could drive some small operators out of business.

National Animal Identification System

Despite the concerns expressed by some cattle owners, the MDA has gone ahead with the program, which is similar to the guidelines released in November 2006 for the implementation of the National Animal Identification System, or NAIS. The Federal program is voluntary, but establishes standards for identifying and tracking cattle from their place of origin to the processing plant. The stated purpose of NAIS is to allow public health officials to respond quickly to a disease outbreak or other emergency linked to livestock in the United States. The system has three components: facilities registration, animal identification, and traceability through a centralized database. The Michigan animal ID program follows a similar structure, although it is more limited in scope: NAIS includes guidelines for tracking all livestock and poultry, while the Michigan requirements are restricted to cattle. To date, Michigan is the only state to require RFID tags for cattle, although some other states require premises registration for livestock owners.

Bovine Tuberculosis Eradication

According to the MDA, the decision to implement the RFID requirement was driven in part by Michigan's ongoing effort to eradicate bovine tuberculosis in the State. Bovine TB is a virulent disease that is transferable to most mammals, including humans (although the risk of a human contracting bovine TB is extremely low). The United States Department of Agriculture has made eradication of the disease its policy, through the National Bovine Tuberculosis Eradication Program. Michigan is one of only three states in the country (along with Texas and New Mexico) that have failed to achieve bovine TB-free status under the national program.

Although the disease was present in Michigan cattle going back to the mid-1900s, it was thought to have been eliminated from the 1970s until 1996, when a white-tailed deer shot by a hunter was found to be infected with the disease. Since that time, additional deer, as well as cattle, have tested positive for bovine TB.

The infected animals have been confined to several counties in the northeastern part of the Lower Peninsula. Since the infection was limited to that portion of the State, Michigan applied for and was granted split-state status, designating the area where the infection was found as a Modified Accredited Zone, or MAZ (meaning that bovine TB is present at a rate of less than 0.1%). Under the bovine TB eradication program, cattle in the MAZ are subject to movement restrictions, and may not be sold or transferred without a whole herd test for bovine TB.

The split-state status allows cattle in other parts of the State to be transported more freely without movement permits or whole herd testing. Since this status was granted, the Upper Peninsula has been certified as bovine TB-free, and the rest of the Lower Peninsula is designated as Modified Accredited Advanced (meaning that bovine TB is present at a rate of less than 0.01%).

The MDA has made RFID tags available to cattle owners since November 2001, as part of a pilot program to help contain the disease. Those tags previously were supplied by the MDA

free of charge, and the State was responsible for verifying that owners complied with the required testing and obtained appropriate permits before moving animals within or out of the MAZ. Proponents of the statewide mandatory RFID cattle tagging program believe that it will enable better tracking of the disease, allowing Michigan to eliminate the TB problem and gain TB-free status throughout the State.

Those opposed to the new regulations complain that the cattle owners now will be required to pay for the cost of the tags. Critics also have said that because bovine TB exists in the wild deer herd, the program will do little to eradicate the disease, which may be reintroduced to cattle from infected deer.

Concerns of Owners

Of the 15,000 cattle facilities in Michigan, about two thirds of those have fewer than 50 head of cattle, according to data from the MDA. Many of the outspoken critics of the RFID program are small farmers who fear that the new requirement will make them uncompetitive with large-scale operations, which can better absorb the costs associated with purchasing the tags, readers, software, and other equipment needed to implement the electronic identification system. The MDA and others have said that a producer is required to install only the tags, not readers or other equipment. The identification number is printed on each tag and may be read visually, eliminating the need for expensive equipment. Those who have religious objections to the use of electronic tags could take a similar approach, installing and reading the tags in the same manner as the visual ear tags are installed and read. Alternatively, since the requirement applies to cattle only when they leave their place of origin, producers can opt to have their cattle tagged immediately before being sold or being transported to the processing facility.

Some cattle owners, including members of the Amish community, have expressed objections not only to the electronic ID tags, but to the prospect of having their premises tracked in a national database, particularly a computer database. Although not opposed to the concept of eradicating bovine TB, they feel that they should not be compelled to comply with a program that would violate their religious beliefs. It has been suggested that the State could make some accommodation, such as allowing cattle to be tagged at the processing facility. That would enable the farmer to remove himself or herself from the process, although it is unclear whether this approach would resolve the issue entirely, since it would not eliminate the requirement for each facility to be assigned a premises identification number.

Another frequent complaint is that the RFID program could be expanded to include other animals such as swine or poultry. Chicken or turkey farms tend to have many more animals than a typical dairy or beef cattle operation does, and the cost and inconvenience of tagging a large number of animals could have significant negative impacts on the industry. Currently, the program is limited to cattle, because of the great concern about bovine TB, mad cow disease, and other ailments that could infect herds in the United States. Avian flu, however, is an equal concern among poultry farmers, and could have similar devastating effects if it took hold in chicken farms in this country. Therefore, critics suggest, there will inevitably be efforts to extend the program to all domesticated animals.

Ultimately, farmers warn, the costs will have to be passed on to consumers who will end up paying higher prices for their beef. They argue that limiting the RFID requirement to beef will place cattle producers at a competitive disadvantage to poultry or other meat producers. If the program is expanded to include other animals, the cost of meat in general is likely to rise to cover the cost of complying with the requirement.

Conclusion

As part of Michigan's continuing effort to eradicate bovine TB, the new RFID regulations will provide more complete and accurate information on cattle herds throughout the State, allowing a rapid response in case of an emergency. A centralized, searchable database will enable investigators to identify other animals that may be contaminated, potentially limiting the extent of the damage. The program could improve the safety of Michigan beef, and allow the entire State to attain free certified status, opening up new markets and easing the transportation requirements that currently apply to farmers in the MAZ.

Those benefits come with a cost, according to critics. The RFID tags are more expensive than the traditional ear tags, and may not be reused. Additional equipment such as radio frequency readers and software could drive the price up even further. Critics also believe that the program is an invasion of privacy, amounting to an unprecedented governmental intrusion into the affairs of cattle ranchers, in order to implement a program that may or may not prove to be effective. Others say that the privacy concerns are overblown, and that the costs of implementation will not be as great as some fear.

In short, the debate is about whether the potential benefits outweigh the costs of the program. If the program is effective at preventing disease and improving the efficiency of animal traceability in the State, it could be worth the cost. Since Michigan is the first state in the country to implement an RFID requirement, many other states likely will be watching closely to determine the effectiveness of the program.