The Michigan Agriculture Commission recently approved a mandate that all cattle leaving the farm on or after March 1, 2007 will be required to be tagged with radio frequency identification (RFID) ear tags as part of the new electronic identification (EID) program.

The driving force behind this ruling is Michigan’s ongoing statewide tuberculosis eradication program. A fast and accurate animal tracking system will aid eradication efforts and increase confidence in Michigan’s ability to control and eradicate TB in its cattle herds. The ability to quickly and accurately track animals will encourage other states to be as generous as possible when deciding if and under what restrictions to allow our cattle into their states. EID will directly benefit Michigan’s cattle industry by aiding our TB disease management capacity.

Why is mandatory cattle identification necessary?

RFID tags are also a part of the National Animal Identification System (NAIS). The national system is being considered because of the need for tracking animals due to diseases such as Bovine Spongiform Encephalopathy. By January 2009, depending on level of participation in both premises and animal identification, a decision will be made on whether the NAIS program will be mandatory or voluntary. Therefore, Michigan is ahead of any national animal identification efforts.

While metal ear tags have been the cornerstone of past animal identification programs, the new RFID ear tags have many advantages. Granted, there will be some blind alleys and frustrations as the system is put into place, but RFID ear tags will allow quicker, more accurate, and more detailed tracking of animal movement.

How the tags work

By understanding how the RFID ear tag works we can sort out some of the rumors surrounding their use. An RFID reader transmits via its antenna an electromagnetic radio frequency signal to a passive RFID tag. The reader then receives the 15 digit animal identification number back from the tag. The reader is only effective within 30 inches of the tag. Pas
sive RFID tags, such as those to be used in Michigan’s animal identification program, have no battery or internal source of energy and cannot send information without a reader. The tags are designed for single use and must be tamper evident.

Using the tags

Michigan cattle producers have three ways of utilizing the RFID tags. The first is to put the tags in per state regulations and not use any animal identification system in your operation. You are out the cost of the tag (approximately $2.00) and the effort to put the tag in, but you have done your part in Michigan’s TB eradication program. A second option is to use the tags and visually read the animal identification number and record it with pencil and paper (the new tags being used in Michigan will only have one number). For small herds with minimal record keeping systems, this will be the most cost effective and practical option. The third option, for larger herds or people who handle a lot of data, is to use a RFID reader that will cost from $300 to $1500. This will allow you to automatically record the animal identification number in the reader, a personal digital assistant, computer, scale, or other data collection device. (Many low-cost readers only read the number and you still have to manually record it.) After data are collected, it can be loaded into a software program that can store and manipulate information.

Possible benefits of the program

Although developed to assist TB eradication efforts, the Michigan EID program has other potential benefits, as well. For people who want to fully utilize production information, RFID will be a very powerful tool. Using RFID tags and readers will decrease recording mistakes, usually 1 per 300 keystrokes, and put data easily into software programs that can generate a great amount of useful management information.